

# Chapter 445A

## Water Pollution Control

### Standards for Water Quality

445A.118	Water quality criteria for total ammonia.....
445A.120	Applicability. ....
445A.121	Standards applicable to all surface waters.....
445A.122	Standards applicable to beneficial uses. ....
445A.123	Classification and reclassification of waters. ....
445A.124	Class A waters: Description; beneficial uses; quality standards. ....
445A.125	Class B waters: Description; beneficial uses; quality standards. ....
445A.126	Class C waters: Description; beneficial uses; quality standards. ....
445A.127	Class D waters: Description; beneficial uses; quality standards. ....
445A.128	Definitions.....
445A.129	“A-Avg.” or “A.A.” defined.....
445A.130	“Δ” defined. ....
445A.131	“Δ pH” defined. ....
445A.132	“Δ T” defined.....
445A.133	“Geometric mean” defined.....
445A.134	“mg/l” defined. ....
445A.135	“No./100ml” defined.....
445A.136	“NTU” defined. ....
445A.137	“PCU” defined.....
445A.138	“pH unit” defined.....
445A.139	“SAR” defined.....
445A.140	“S.V.” defined.....
445A.141	“≥” defined.....
445A.142	“≤” defined.....
445A.143	Cooperation regarding Colorado River; salinity standards. ....
445A.144	Standards for toxic materials applicable to designated waters. ....
445A.145	Control points: Prescription and applicability of numerical standards for water quality; designation of beneficial uses. ....
445A.146	Beneficial uses for Carson River.....
445A.147	Carson River: West Fork at the state line.....
445A.148	Carson River: Bryant Creek near the state line. ....
445A.149	Carson River: East Fork at the state line.....
445A.150	Carson River: East Fork at Highway 395, south of Gardnerville.....
445A.151	Carson River: East Fork at Muller Lane.....
445A.152	Carson River at Genoa Lane.....
445A.153	Carson River at Cradlebaugh Bridge.....
445A.154	Carson River at Mexican Ditch Gage.....
445A.155	Carson River near New Empire.....
445A.156	Carson River at Dayton Bridge.....
445A.157	Carson River at Weeks.....
445A.158	Carson River at Lahontan Dam.....
445A.159	Beneficial uses for Walker River. ....
445A.160	West Walker River at the state line.....
445A.161	Topaz Lake.....
445A.162	West Walker River near Wellington.....
445A.163	West Walker River above confluence with East Walker River at Nordyke Road.....
445A.164	Sweetwater Creek.....
445A.165	East Walker River at the state line.....
445A.1655	East Walker River at Bridge B-1475.....
445A.166	East Walker River south of Yerington.....
445A.167	Walker River at inlet to Weber Reservoir.....
445A.168	Walker River at Schurz Bridge.....
445A.169	Desert Creek.....
445A.1693	Beneficial uses for Walker Lake.....
445A.1696	Walker Lake.....
445A.170	Beneficial uses for part of Colorado River, Beaver Dam Wash and certain creeks.....

445A.171	Chiatovich Creek.....
445A.172	Indian Creek.....
445A.173	Leidy Creek.....
445A.174	Beneficial uses for Virgin River, Meadow Valley Wash and part of Muddy River.....
445A.175	Virgin River at Mesquite.....
445A.176	Virgin River at the state line near Littlefield.....
445A.177	Virgin River at Riverside.....
445A.178	Beaver Dam Wash.....
445A.179	Snake Creek.....
445A.180	Smoke Creek.....
445A.181	Bronco Creek.....
445A.182	Gray Creek.....
445A.183	Beneficial uses for Truckee River from Pyramid Lake to the state line.....
445A.184	Truckee River at the state line.....
445A.185	Truckee River at Idlewild.....
445A.186	Truckee River at East McCarran.....
445A.187	Truckee River at Lockwood Bridge.....
445A.188	Truckee River at Derby Dam.....
445A.189	Truckee River at Wadsworth Gage.....
445A.190	Truckee River at Pyramid Lake.....
445A.1905	Beneficial uses for Lake Tahoe.....
445A.191	Lake Tahoe.....
445A.1912	Beneficial uses for tributaries to Lake Tahoe.....
445A.1915	Tributaries to Lake Tahoe.....
445A.1917	Standards to maintain higher quality waters within tributaries to Lake Tahoe.....
445A.192	Colorado River below Davis Dam.....
445A.193	Colorado River below Hoover Dam.....
445A.194	Requirements to maintain existing higher quality for area of Lake Mead; standards for beneficial uses for area not covered by NAC 445A.196.....
445A.195	Lake Mead excluding area covered by NAC 445A.197.....
445A.196	Requirements to maintain existing higher quality for area of Lake Mead from western boundary of Las Vegas Bay Campground to confluence of Las Vegas Wash; standards for beneficial uses; goal of requirements and standards.....
445A.197	Lake Mead from western boundary of Las Vegas Bay Campground to confluence of Las Vegas Wash.....
445A.198	Requirements to maintain existing higher quality for area of Las Vegas Wash from Telephone Line Road to confluences of discharges from Clark County and City of Las Vegas wastewater treatment plants; standards for beneficial uses; goal of requirements and standards.....
445A.199	Las Vegas Wash from Telephone Line Road to confluence of discharges from City of Las Vegas and Clark County wastewater treatment plants.....
445A.200	Requirements to maintain existing higher quality for area from confluence of Las Vegas Wash with Lake Mead to Telephone Line Road; standards for beneficial uses; goal of requirements and standards.....
445A.201	Confluence of Las Vegas Wash with Lake Mead to Telephone Line Road.....
445A.202	Beneficial uses for Humboldt River.....
445A.203	Humboldt River near Osino.....
445A.204	Humboldt River at Palisade Gage.....
445A.205	Humboldt River at Battle Mountain Gage.....
445A.206	Humboldt River at crossing of state highway 789.....
445A.207	Humboldt River at Imlay.....
445A.208	Humboldt River at Woolsey.....
445A.209	Beneficial uses for Muddy River at Glendale Bridge.....
445A.210	Muddy River at Glendale Bridge.....
445A.211	Muddy River at Overton.....
445A.212	Meadow Valley Wash.....
445A.214	Beneficial uses for areas in Snake River Basin.....
445A.215	Big Goose Creek.....
445A.216	Salmon Falls Creek.....
445A.217	Shoshone Creek.....
445A.218	Jarbridge River: East Fork.....
445A.219	Jarbridge River upstream from Jarbridge.....
445A.220	Jarbridge River downstream from Jarbridge.....
445A.221	Bruneau River: West Fork.....
445A.222	Owyhee River: East Fork above Mill Creek.....
445A.223	Owyhee River: East Fork south of Owyhee.....
445A.224	Owyhee River: East Fork, Nevada-Idaho state line.....
445A.225	Owyhee River: South Fork.....

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## Standards for Water Quality

### **NAC 445A.118 Water quality criteria for total ammonia. (NRS 445A.425, 445A.520)**

1. The acute criteria of water quality with regard to the concentration of total ammonia are subject to the following:

(a) The 1-hour average concentration of total ammonia, in milligrams of nitrogen per liter, for the protection of freshwater aquatic life is shown in Table 1.

(b) For cold-water fisheries, the concentration of total ammonia, in milligrams of nitrogen per liter, must not exceed the applicable acute criterion listed under “Cold-Water Fisheries” set forth in Table 1, more than once every 3 years on average.

(c) For warm-water fisheries, the concentration of total ammonia, in milligrams of nitrogen per liter, must not exceed the applicable acute criterion listed under “Warm-Water Fisheries” set forth in Table 1, more than once every 3 years on average.

2. The chronic criteria of water quality with regard to the concentration of total ammonia are subject to the following:

(a) The 30-day average concentration of total ammonia, in milligrams of nitrogen per liter, for the protection of freshwater aquatic life is shown in Tables 2 and 3.

(b) The concentration of total ammonia, in milligrams of nitrogen per liter, expressed as a 30-day average must not exceed the applicable chronic criterion listed in Tables 2 and 3 more than once every 3 years on average, and the highest 4-day average within the 30-day period must not exceed 2.5 times the applicable chronic criterion.

(c) Table 3 must not be used unless the division receives acceptable documentation of the absence of freshwater fish in early life stages.

TABLE 1: ACUTE WATER QUALITY CRITERIA FOR TOTAL AMMONIA FOR FRESHWATER AQUATIC LIFE (mg nitrogen/l)		
pH	Cold-Water Fisheries <sup>1</sup>	Warm-Water Fisheries <sup>2</sup>
6.5	32.6	48.8
6.6	31.3	46.8
6.7	29.8	44.6
6.8	28.1	42.0
6.9	26.2	39.1
7.0	24.1	36.1
7.1	22.0	32.8
7.2	19.7	29.5
7.3	17.5	26.2
7.4	15.4	23.0
7.5	13.3	19.9
7.6	11.4	17.0
7.7	9.65	14.4
7.8	8.11	12.1
7.9	6.77	10.1
8.0	5.62	8.40
8.1	4.64	6.95
8.2	3.83	5.72
8.3	3.15	4.71
8.4	2.59	3.88
8.5	2.14	3.20
8.6	1.77	2.65

TABLE 1: ACUTE WATER QUALITY CRITERIA FOR TOTAL AMMONIA FOR FRESHWATER AQUATIC LIFE (mg nitrogen/l)		
pH	Cold-Water Fisheries <sup>1</sup>	Warm-Water Fisheries <sup>2</sup>
8.7	1.47	2.20
8.8	1.23	1.84
8.9	1.04	1.56
9.0	0.885	1.32

<sup>1</sup> The acute water quality criteria for total ammonia for cold-water fisheries were calculated using the following equation, which may also be used to calculate unlisted values:

Acute water quality criteria for ammonia (cold-water fisheries) =

$$\left[ \frac{0.275}{1 + 10^{7.204 - \text{pH}}} \right] + \left[ \frac{39.0}{1 + 10^{\text{pH} - 7.204}} \right]$$

<sup>2</sup> The acute water quality criteria for total ammonia for warm-water fisheries were calculated using the following equation, which may also be used to calculate unlisted values:

Acute water quality criteria for ammonia (warm-water fisheries) =

$$\left[ \frac{0.411}{1 + 10^{7.204 - \text{pH}}} \right] + \left[ \frac{58.4}{1 + 10^{\text{pH} - 7.204}} \right]$$

TABLE 2: CHRONIC WATER QUALITY CRITERIA FOR TOTAL AMMONIA FOR WATERS WHERE FRESHWATER FISH IN EARLY LIFE STAGES MAY BE PRESENT (mg nitrogen/l) <sup>1</sup>										
pH	Temperature (°C)									
	0	14	16	18	20	22	24	26	28	30
6.5	6.67	6.67	6.06	5.33	4.68	4.12	3.62	3.18	2.80	2.46
6.6	6.57	6.57	5.97	5.25	4.61	4.05	3.56	3.13	2.75	2.42
6.7	6.44	6.44	5.86	5.15	4.52	3.98	3.50	3.07	2.70	2.37
6.8	6.29	6.29	5.72	5.03	4.42	3.89	3.42	3.00	2.64	2.32
6.9	6.12	6.12	5.56	4.89	4.30	3.78	3.32	2.92	2.57	2.25
7.0	5.91	5.91	5.37	4.72	4.15	3.65	3.21	2.82	2.48	2.18
7.1	5.67	5.67	5.15	4.53	3.98	3.50	3.08	2.70	2.38	2.09
7.2	5.39	5.39	4.90	4.31	3.78	3.33	2.92	2.57	2.26	1.99
7.3	5.08	5.08	4.61	4.06	3.57	3.13	2.76	2.42	2.13	1.87
7.4	4.73	4.73	4.30	3.78	3.32	2.92	2.57	2.26	1.98	1.74
7.5	4.36	4.36	3.97	3.49	3.06	2.69	2.37	2.08	1.83	1.61
7.6	3.98	3.98	3.61	3.18	2.79	2.45	2.16	1.90	1.67	1.47
7.7	3.58	3.58	3.25	2.86	2.51	2.21	1.94	1.71	1.50	1.32
7.8	3.18	3.18	2.89	2.54	2.23	1.96	1.73	1.52	1.33	1.17
7.9	2.80	2.80	2.54	2.24	1.96	1.73	1.52	1.33	1.17	1.03
8.0	2.43	2.43	2.21	1.94	1.71	1.50	1.32	1.16	1.02	0.897
8.1	2.10	2.10	1.91	1.68	1.47	1.29	1.14	1.00	0.879	0.773
8.2	1.79	1.79	1.63	1.43	1.26	1.11	0.973	0.855	0.752	0.661
8.3	1.52	1.52	1.39	1.22	1.07	0.941	0.827	0.727	0.639	0.562
8.4	1.29	1.29	1.17	1.03	0.906	0.796	0.700	0.615	0.541	0.475
8.5	1.09	1.09	0.990	0.870	0.765	0.672	0.591	0.520	0.457	0.401
8.6	0.920	0.920	0.836	0.735	0.646	0.568	0.499	0.439	0.386	0.339
8.7	0.778	0.778	0.707	0.622	0.547	0.480	0.422	0.371	0.326	0.287
8.8	0.661	0.661	0.601	0.528	0.464	0.408	0.359	0.315	0.277	0.244

TABLE 2: CHRONIC WATER QUALITY CRITERIA FOR TOTAL AMMONIA FOR WATERS WHERE FRESHWATER FISH IN EARLY LIFE STAGES MAY BE PRESENT (mg nitrogen/l) <sup>1</sup>										
pH	Temperature (°C)									
	0	14	16	18	20	22	24	26	28	30
8.9	0.565	0.565	0.513	0.451	0.397	0.349	0.306	0.269	0.237	0.208
9.0	0.486	0.486	0.442	0.389	0.342	0.300	0.264	0.232	0.204	0.179

<sup>1</sup> The chronic water quality criteria for total ammonia for waters where freshwater fish in early life stages may be present were calculated using the following equation, which may also be used to calculate unlisted values:

Chronic water quality criteria for ammonia (fish in early life stages present) =

$$\left[ \frac{0.0577}{1 + 10^{7.688 - pH}} + \frac{2.487}{1 + 10^{pH - 7.688}} \right] \times \text{MIN} [2.85, 1.45 \times 10^{0.028 \times (25 - T)}] \quad \text{where:}$$

T=°C

x means multiplication

MIN means the lesser of the two values separated by the comma

TABLE 3: CHRONIC WATER QUALITY CRITERIA FOR TOTAL AMMONIA FOR WATERS WHERE FRESHWATER FISH IN EARLY LIFE STAGES ARE ABSENT (mg nitrogen/l) <sup>1</sup>										
pH	Temperature (°C)									
	0-7	8	9	10	11	12	13	14	15 <sup>2</sup>	16 <sup>2</sup>
6.5	10.8	10.1	9.51	8.92	8.36	7.84	7.35	6.89	6.46	6.06
6.6	10.7	9.99	9.37	8.79	8.24	7.72	7.24	6.79	6.36	5.97
6.7	10.5	9.81	9.20	8.62	8.08	7.58	7.11	6.66	6.25	5.86
6.8	10.2	9.58	8.98	8.42	7.90	7.40	6.94	6.51	6.10	5.72
6.9	9.93	9.31	8.73	8.19	7.68	7.20	6.75	6.33	5.93	5.56
7.0	9.60	9.00	8.43	7.91	7.41	6.95	6.52	6.11	5.73	5.37
7.1	9.20	8.63	8.09	7.58	7.11	6.67	6.25	5.86	5.49	5.15
7.2	8.75	8.20	7.69	7.21	6.76	6.34	5.94	5.57	5.22	4.90
7.3	8.24	7.73	7.25	6.79	6.37	5.97	5.60	5.25	4.92	4.61
7.4	7.69	7.21	6.76	6.33	5.94	5.57	5.22	4.89	4.59	4.30
7.5	7.09	6.64	6.23	5.84	5.48	5.13	4.81	4.51	4.23	3.97
7.6	6.46	6.05	5.67	5.32	4.99	4.68	4.38	4.11	3.85	3.61
7.7	5.81	5.45	5.11	4.79	4.49	4.21	3.95	3.70	3.47	3.25
7.8	5.17	4.84	4.54	4.26	3.99	3.74	3.51	3.29	3.09	2.89
7.9	4.54	4.26	3.99	3.74	3.51	3.29	3.09	2.89	2.71	2.54
8.0	3.95	3.70	3.47	3.26	3.05	2.86	2.68	2.52	2.36	2.21
8.1	3.41	3.19	2.99	2.81	2.63	2.47	2.31	2.17	2.03	1.91
8.2	2.91	2.73	2.56	2.40	2.25	2.11	1.98	1.85	1.74	1.63
8.3	2.47	2.32	2.18	2.04	1.91	1.79	1.68	1.58	1.48	1.39
8.4	2.09	1.96	1.84	1.73	1.62	1.52	1.42	1.33	1.25	1.17
8.5	1.77	1.66	1.55	1.46	1.37	1.28	1.20	1.13	1.06	0.990
8.6	1.49	1.40	1.31	1.23	1.15	1.08	1.01	0.951	0.892	0.836
8.7	1.26	1.18	1.11	1.04	0.976	0.915	0.858	0.805	0.754	0.707
8.8	1.07	1.01	0.944	0.885	0.829	0.778	0.729	0.684	0.641	0.601
8.9	0.917	0.860	0.806	0.756	0.709	0.664	0.623	0.584	0.548	0.513
9.0	0.790	0.740	0.694	0.651	0.610	0.572	0.536	0.503	0.471	0.442

<sup>1</sup> The chronic water quality criteria for total ammonia for waters where freshwater fish in early life stages are absent were calculated using the following equation, which may also be used to calculate unlisted values:

Chronic water quality criteria for ammonia (fish in early life stages absent) =

$$\left[ \frac{0.0577}{(1 + 10^{7.688 - pH})} + \frac{2.487}{(1 + 10^{pH - 7.688})} \right] \times 1.45 \times \left[ 10^{0.028 \times (25 - \text{MAX}(T, 7))} \right] \quad \text{where:}$$

T=°C

x means multiplication

MAX means the greater of the two values separated by the comma

<sup>2</sup> At 15°C and above, the criteria for waters where freshwater fish in early life stages are absent is the same as the criteria for waters where freshwater fish in early life stages may be present.

NOTES FOR TABLES 1, 2 AND 3:

- pH and temperature are field measurements that must be taken at the same time and location as the water sample destined for the laboratory analysis of ammonia.

- If the field-measured pH or the temperature values, or both, fall between the tabular values set forth in this section, the field-measured values or temperature values, as appropriate, must be rounded according to standard rounding procedures to the nearest tabular value to determine the applicable ammonia standard, or the equations provided in this section may be used to calculate unlisted values.

(Added to NAC by Environmental Comm'n by R099-02, eff. 12-17-2002)

**NAC 445A.120 Applicability. (NRS 445A.425, 445A.520)**

1. NAC 445A.120 to 445A.225, inclusive, apply to all natural streams and lakes, reservoirs or impoundments on natural streams and other specified waterways, unless excepted on the basis of existing irreparable conditions which preclude such use. Man-made waterways, unless otherwise specified, must be protected for public health and the use for which the waterways were developed.

2. The quality of any waters receiving waste discharges must be such that no impairment of the beneficial usage of water occurs as the result of the discharge. Natural water conditions may, on occasion, be outside the limits established by standards. The standards adopted in NAC 445A.120 to 445A.225, inclusive, relate to the condition of waters as affected by discharges relating to the activities of man.

[Environmental Comm'n, Water Pollution Control Reg. § 4.1, eff. 5-2-78]—(NAC A 12-3-84; R017-99, 9-27-99)

**NAC 445A.121 Standards applicable to all surface waters. (NRS 445A.425, 445A.520)** The following standards are applicable to all surface waters of the state:

1. Waters must be free from substances attributable to domestic or industrial waste or other controllable sources that will settle to form sludge or bottom deposits in amounts sufficient to be unsightly, putrescent or odorous or in amounts sufficient to interfere with any beneficial use of the water.

2. Waters must be free from floating debris, oil, grease, scum and other floating materials attributable to domestic or industrial waste or other controllable sources in amounts sufficient to be unsightly or in amounts sufficient to interfere with any beneficial use of the water.

3. Waters must be free from materials attributable to domestic or industrial waste or other controllable sources in amounts sufficient to produce taste or odor in the water or detectable off-flavor in the flesh of fish or in amounts sufficient to change the existing color, turbidity or other conditions in the receiving stream to such a degree as to create a public nuisance or in amounts sufficient to interfere with any beneficial use of the water.

4. Waters must be free from high temperature, biocides, organisms pathogenic to human beings, toxic, corrosive or other deleterious substances attributable to domestic or industrial waste or other controllable sources at levels or combinations sufficient to be toxic to human, animal, plant or aquatic life or in amounts sufficient to interfere with any

beneficial use of the water. Compliance with the provisions of this subsection may be determined in accordance with methods of testing prescribed by the department. If used as an indicator, survival of test organisms must not be significantly less in test water than in control water.

5. If toxic materials are known or suspected by the department to be present in a water, testing for toxicity may be required to determine compliance with the provisions of this section and effluent limitations. The department may specify the method of testing to be used. The failure to determine the presence of toxic materials by testing does not preclude a determination by the department, on the basis of other criteria or methods, that excessive levels of toxic materials are present.

6. Radioactive materials attributable to municipal, industrial or other controllable sources must be the minimum concentrations that are physically and economically feasible to achieve. In no case must materials exceed the limits established in the 1962 Public Health Service Drinking Water Standards (or later amendments) or 1/30th of the MPC values given for continuous occupational exposure in the "National Bureau of Standards Handbook No. 69." The concentrations in water must not result in accumulation of radioactivity in plants or animals that result in a hazard to humans or harm to aquatic life.

7. Wastes from municipal, industrial or other controllable sources containing arsenic, barium, boron, cadmium, chromium, cyanide, fluoride, lead, selenium, silver, copper and zinc that are reasonably amenable to treatment or control must not be discharged untreated or uncontrolled into the waters of Nevada. In addition, the limits for concentrations of the chemical constituents must provide water quality consistent with the mandatory requirements of the 1962 Public Health Service Drinking Water Standards.

8. The specified standards are not considered violated when the natural conditions of the receiving water are outside the established limits, including periods of extreme high or low flow. Where effluents are discharged to such waters, the discharges are not considered a contributor to substandard conditions provided maximum treatment in compliance with permit requirements is maintained.

[Environmental Comm'n, Water Pollution Control Reg. § 4.1.2 subsecs. a-g, eff. 5-2-78]—  
(NAC A 9-26-90; R017-99, 9-27-99)

#### **NAC 445A.122 Standards applicable to beneficial uses.**

1. The following standards are intended to protect both existing and designated beneficial uses and must not be used to prohibit the use of the water as authorized under Title 48 of NRS:

(a) Watering of livestock. The water must be suitable for the watering of livestock without treatment.

(b) Irrigation. The water must be suitable for irrigation without treatment.

(c) Aquatic life. The water must be suitable as a habitat for fish and other aquatic life existing in a body of water. This does not preclude the reestablishment of other fish or aquatic life.

(d) Recreation involving contact with the water. There must be no evidence of manmade pollution, floating debris, sludge accumulation or similar pollutants.

(e) Recreation not involving contact with the water. The water must be free from:

- (1) Visible floating, suspended or settled solids arising from man's activities;
- (2) Sludge banks;
- (3) Slime infestation;
- (4) Heavy growth of attached plants, blooms or high concentrations of plankton, discoloration or excessive acidity or alkalinity that leads to corrosion of boats and docks;
- (5) Surfactants that foam when the water is agitated or aerated; and
- (6) Excessive water temperatures.



(f) Municipal or domestic supply. The water must be capable of being treated by conventional methods of water treatment in order to comply with Nevada's drinking water standards.

(g) Industrial supply. The water must be treatable to provide a quality of water which is suitable for the intended use.

(h) Propagation of wildlife. The water must be suitable for the propagation of wildlife and waterfowl without treatment.

(i) Waters of extraordinary ecological or aesthetic value. The unique ecological or aesthetic value of the water must be maintained.

(j) Enhancement of water quality. The water must support natural enhancement or improvement of water quality in any water which is downstream.

2. This section does not entitle an appropriator to require that the source meet his particular requirements for water quality.

[Environmental Comm'n, Water Pollution Control Reg. § 4.1.1, eff. 5-2-78]—(NAC A 11-22-82; 12-3-84; 11-9-95)

#### **NAC 445A.123 Classification and reclassification of waters.**

1. Stream standards and classifications in NAC 445A.123 to 445A.127, inclusive, do not preclude the commission from establishing standards and classifications for additional public waters nor reclassifying the waters covered by those sections.

2. The commission will consider classification of a body of public water not contained in the tables in NAC 445A.123 to 445A.127, inclusive, upon a request for a permit to discharge into that body of water.

[Environmental Comm'n, Water Pollution Control Reg. § 4.2, eff. 5-2-78]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.121)

#### **NAC 445A.124 Class A waters: Description; beneficial uses; quality standards.**

1. Class A waters include waters or portions of waters located in areas of little human habitation, no industrial development or intensive agriculture and where the watershed is relatively undisturbed by man's activity.

2. The beneficial uses of class A waters are municipal or domestic supply, or both, with treatment by disinfection only, aquatic life, propagation of wildlife, irrigation, watering of livestock, recreation including contact with the water and recreation not involving contact with the water.

3. The quality standards for class A waters are:

Item	Specifications
(a) Floating solids, sludge deposits, tastes or odor-producing substances.	None attributable to man's activities.
(b) Sewage, industrial wastes or other wastes.	None.
(c) Toxic materials, oils, deleterious substances, colored or other wastes.	None.
(d) Settleable solids.	Only amounts attributable to man's activities which will not make the waters unsafe or unsuitable as a drinking water source or which will not be detrimental to aquatic life or for any other beneficial use established for this class.
(e) pH.	Range between 6.5 to 8.5.
(f) Dissolved oxygen.	Must not be less than 6.0 milligrams/liter.
(g) Temperature.	Must not exceed 20°C. Allowable temperature increase above natural

Item	Specifications
	receiving water temperature: None.
(h) Fecal coliform.	The fecal coliform concentration, based on a minimum of 5 samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 milliliters.
(i) Total phosphate.	Must not exceed 0.15 mg/l in any stream at the point where it enters any reservoir or lake, nor 0.075 mg/l in any reservoir or lake, nor 0.30 mg/l in streams and other flowing waters.
(j) Total dissolved solids.	Must not exceed 500 mg/l or one-third above that characteristic of natural conditions (whichever is less).
4. The waters classified as class A are:	

TABLE A

Class A Waters

HR-Hydrographic region  
HA-Hydrographic area

CARSON CITY

Water	HR	HA	Description of Area Classified
Ash Canyon	8	104	From its origin to the first point of diversion of the Carson City water department.
Clear Creek	8	104	From its origin to gaging station number 10-3105 located in NE 1/4 NE 1/4, section 1, T. 14 N., R. 19E., M.D.B. & M.
Kings Canyon	8	104	From its origin to the point of the diversion of the Carson City water department.

DOUGLAS COUNTY

Water	HR	HA	Description of Area Classified
Daggett Creek	8	105	From its origin to the Carson River.
Genoa Creek	8	105	From its origin to the first diversion box at the mouth of the canyon.
Sierra Canyon Creek	8	105	From its origin to the first diversion structure at the mouth of the canyon.

# ELKO COUNTY

Water	HR	HA	Description of Area Classified
Angel Lake	10	177	The entire lake.
Bear Creek	3	39	From its origin to the point of diversion for the Jarbidge municipal water supply.
Brown's Gulch	3	37	From its origin to the point of diversion for the Mountain City municipal water supply.
Camp Creek	3	40	From its origin to the national forest boundary.
Canyon Creek	3	40	From its origin to the national forest boundary.
Cottonwood Creek	3	40	From its origin to the national forest boundary.
Deep Creek	3	37	From its origin to the Wildhorse Reservoir.
Green Mountain Creek	4	47	From its origin to the national forest boundary.
Hendricks Creek	3	37	From its origin to Wildhorse Reservoir.
Humboldt River (N. Fork) and tributaries in Independence Mountain Range	4	44	From its origin to the national forest boundary.
Humboldt River (S. Fork) and tributaries	4	46	From its origin to Lee.
Jack Creek	3	37	From its origin to the north line of T. 41 N., R. 52 E., M.D.B. & M.
Lamoille Creek	4	45	From its origin to gaging station number 10-316500 located in the NE 1/4, section 6, T. 32 N., R. 58 E., M.D.B. & M.
Maggie Creek tributaries	4	51	From their origin to the point where they become Maggie Creek or the point where they reach Maggie Creek.
Mary's River	4	42	From its origin to the point where the river crosses the east line of T. 42 N., R. 59 E., M.D.B. & M.
Owyhee River (E. Fork) above Wildhorse	3	37	From its origin to Wildhorse Reservoir.
Penrod Creek	3	37	From its origin including tributaries to Wildhorse Reservoir.
Pole Canyon Creek	3	37	From its origin to where it becomes Franklin River.
Secret Creek	4	43	From its origin to the national forest boundary.
Starr Creek	4	43	From its origin to the national forest boundary.
Tabor Creek	4	42	From its origin to the east line of T. 40 N., R. 60 E., M.D.B. & M.
Toyn Creek	4	47	From its origin to the national forest boundary.

Water	HR	HA	Description of Area Classified
Willow Creek	4	63	From its origin to Willow Creek Reservoir.

#### EUREKA COUNTY

Water	HR	HA	Description of Area Classified
Denay Creek	4	53	From its origin to Tonkin Reservoir.
Roberts Creek	10	139	From its origin to Roberts Creek Reservoir.
Tonkin Reservoir	4	53	The entire reservoir.

#### HUMBOLDT COUNTY

Water	HR	HA	Description of Area Classified
Bilk Creek	2	29	From its origin to its intersection with the south line of section 35, T. 45 N., R. 32 E., M.D.B. & M.
Blue Lakes	1	2	Entire area.
Bottle Creek	2	31	From its origin to the first point of diversion.
Dutch John Creek	4	68	The entire length.
Leonard Creek	2	28	From its origin to the first point of diversion.
Little Humboldt River (N. Fork)	4	67	From its origin to the national forest boundary.
Little Humboldt River (S. Fork)	4	67	From its origin to Elko-Humboldt county line.
Mahogany Creek	2	27	From its origin to Summit Lake.
Martin Creek	4	68, 69	From its origin to the national forest boundary.
Pole Creek	4	70	From its origin to the point of diversion of the Golconda water supply.
Quinn River	2	28, 29, 30, 33	From its origin to the confluence of the east fork and south fork.
Water Canyon Creek	4	71	From its origin to the point of diversion of the Winnemucca municipal water supply.

#### LANDER COUNTY

Water	HR	HA	Description of Area Classified
Big Creek	4	56	From its origin to the east boundary of United States Forest Service Big Creek Campground.
Birch Creek	10	137	From its origin to the national forest boundary.
Kingston Creek	10	137	From its origin to Groves Reservoir.

Water	HR	HA	Description of Area Classified
Lewis Creek	4	59	From its origin to the first point of diversion.
Mill Creek	4	59	From its origin to the first point of diversion.
Rock Creek	4	61, 62, 63	From its origin to Squaw Valley Ranch.
Skull Creek	10	138	From its origin to the first point of diversion.
Steiner Creek	10	138	From its origin to the first point of diversion.

#### MINERAL COUNTY

Water	HR	HA	Description of Area Classified
Corey Creek	9	110C	From its origin to the point of diversion of the town of Hawthorne.
Cottonwood Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot.
Rose Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot.
Squaw Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot.

#### NYE COUNTY

Water	HR	HA	Description of Area Classified
Barley Creek	10	140	From its origin to the first point of diversion.
Currant Creek	10	173	From its origin to the national forest boundary.
Jett Creek	10	137	From its origin to the national forest boundary.
Mosquito Creek	10	140	From its origin to the national forest boundary.
Peavine Creek	10	137	From its origin to the first point of diversion.
Pine Creek	10	140	From its origin to the national forest boundary.
Reese Creek	4	56	From its origin to its confluence with Indian Creek.
San Juan Creek	4	56	From its origin to the national forest boundary.
Stoneberger Creek	10	140	From its origin to the national forest boundary.
Twin River (N. Fork)	10	137	From its origin to the first point of diversion.

Water	HR	HA	Description of Area Classified
Twin River (S. Fork)	10	137	From its origin to the first point of diversion.

#### PERSHING COUNTY

Water	HR	HA	Description of Area Classified
Star Creek	10	129	From its origin to the first point of diversion.

#### WASHOE COUNTY

Water	HR	HA	Description of Area Classified
Boulder Reservoir	1	9	The entire reservoir.
Catnip Reservoir	1	6	The entire reservoir.
Franktown Creek	6	89	From its origin to the first irrigation diversion.
Galena Creek	6	88	From its origin to the east line of section 18, T. 17 N., R. 19 E., M.D.B. & M.
Hunter Creek	6	91	From its origin to Hunter Lake.
Hunter Lake	6	87	The entire lake.
Nigger Creek	2	24	From its origin to the first irrigation diversion.
Ophir Creek	6	89	From its origin to old U.S. Highway 395.
Price's Lakes	6	89	The entire lake.
White's Creek	6	87	From its origin to the east line of section 33, T. 18 N., R. 19 E., M.D.B. & M.

#### WHITE PINE COUNTY

Water	HR	HA	Description of Area Classified
Baker Creek	11	195	From its origin to the national forest boundary.
Berry Creek	10	179	From its origin to pipeline intake.
Bird Creek	10	179	From its origin to pipeline intake.
Cave Creek	10	179	Its entire length.
Cleve Creek	10	184	From its origin to the national forest boundary.
Current Creek	10	173	From its origin to the national forest boundary.
Duck Creek	10	179	From its origin to pipeline intake.
East Creek	10	179	From its origin to pipeline intake.
Goshute Creek	10	179	From its origin to the first point of diversion.
Hendry's Creek	11	195	From its origin to the national forest boundary.
Huntington Creek	4	47	From its origin to the White Pine-Elko county line.

Water	HR	HA	Description of Area Classified
Lehman Creek	11	195	From its origin to the national forest boundary.
North Creek	10	179	From its origin to pipeline intake.
Pine Creek	10	184	From its origin to the first point of diversion.
Ridge Creek	10	184	From its origin to the first point of diversion.
Silver Creek	11	195	From its origin to the national forest boundary.
Timber Creek	10	179	From its origin to pipeline intake.
White River	13	207	From its origin to the national forest boundary.

[Environmental Comm'n, Water Pollution Control Reg. §§ 4.2.1-4.2.1.3, eff. 5-2-78]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.122)

**NAC 445A.125 Class B waters: Description; beneficial uses; quality standards.**

1. Class B waters include waters or portions of waters which are located in areas of light or moderate human habitation, little industrial development, light-to-moderate agricultural development and where the watershed is only moderately influenced by man's activity.

2. The beneficial uses of class B water are municipal or domestic supply, or both, with treatment by disinfection and filtration only, irrigation, watering of livestock, aquatic life and propagation of wildlife, recreation involving contact with the water, recreation not involving contact with the water, and industrial supply.

3. The quality standards for class B waters are:

Item	Specifications
(a) Floating solids, settleable solids or sludge deposits.	Only such amounts attributable to man's activities which will not make the waters unsafe or unsuitable as a drinking water source, injurious to fish or wildlife or impair the waters for any other beneficial use established for this class.
(b) Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.
(c) Odor-producing substances.	Only such amounts which will not impair the palatability of drinking water or fish or have a deleterious effect upon fish, wildlife or any beneficial uses established for waters of this class.
(d) Toxic materials, oil, deleterious substances, colored or other wastes, or heated or cooled liquids.	Only such amounts as will not render the receiving waters injurious to fish or wildlife or impair the receiving waters for any beneficial uses established for this class.
(e) pH.	Range between 6.5 to 8.5.
(f) Dissolved oxygen.	For trout waters, not less than 6.0 milligrams/liter; for nontrout waters, not less than 5.0 milligrams/liter.

Item	Specifications
(g) Temperature.	Must not exceed 20°C for trout waters or 24°C for nontrout waters. Allowable temperature increase above natural receiving water temperatures: None.
(h) Fecal coliform.	The fecal coliform concentration, based on a minimum of 5 samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters, nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 milliliters.
(i) Total phosphates.	Must not exceed 0.3 mg/l.
(j) Total dissolved solids.	Must not exceed 500 mg/l or one-third above that characteristic of natural conditions (whichever is less).
4. The waters classified as class B are:	

TABLE B

Class B Waters

HR-Hydrographic region  
HA-Hydrographic area

CARSON CITY

Water	HR	HA	Description of Area Classified
Clear Creek	8	104	From gaging station number 10-3105 located in the NE 1/4 NW 1/4, section 1, T. 14 N., R. 19 E., M.D.B. & M. to the Carson River.

ELKO COUNTY

Water	HR	HA	Description of Area Classified
Bull Run Reservoir	3	35	The entire reservoir.
Camp Creek	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Canyon Creek	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Cottonwood Creek	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Green Mountain Creek	4	47	From the national forest boundary to its confluence with Corral Creek.
Humboldt River (N. Fork)	4	44	From the national forest boundary to its confluence with the Humboldt



Water	HR	HA	Description of Area Classified
			River.
Humboldt River (S. Fork)	4	46	From Lee to its confluence with the Humboldt River.
Huntington Creek	4	47	From White Pine county line to confluence with South Fork Humboldt River.
Jack Creek	3	36	From the north line of T. 41 N., R. 52 E., M.D.B. & M. to South Fork Owyhee River.
Lamoille Creek	4	45	From gaging station number 10-316500 located in the NE 1/4, section 6, T. 32 N., R. 58 E., M.D.B. & M. to its confluence with the Humboldt River.
Maggie Creek	4	51	From where it is formed by tributaries to its confluence with Jack Creek.
Mary's River	4	42	From the east line of T. 42 N., R. 59 E., M.D.B. & M. to its confluence with the Humboldt River.
Ruby Marsh	10	176	The entire area.
Salmon Falls Creek (N. Fork)	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Salmon Falls Creek (S. Fork)	3	40	From the national forest boundary to its confluence with the north fork of Salmon Falls Creek.
76 Creek	3	38	Its entire length.
Secret Creek	4	43	From the national forest boundary to the Humboldt River.
Starr Creek	4	43	From the national forest boundary to the Humboldt River.
Wildhorse Reservoir	3	37	The entire reservoir.
Willow Creek Reservoir	4	63	The entire reservoir.
Wilson Reservoir	3	35	The entire reservoir.

#### EUREKA COUNTY

Water	HR	HA	Description of Area Classified
Denay Creek	4	53	Below Tonkin Reservoir.
Fish Springs Pond	10	155	The entire pond.
Roberts Creek	10	139	Below Roberts Creek Reservoir.

#### HUMBOLDT COUNTY

Water	HR	HA	Description of Area Classified
Bilk Creek	2	29	From its intersection with the south line of section 35, T. 45 N., R. 32 E., M.D.B. & M. to Bilk Creek Reservoir.
Bilk Creek Reservoir	2	29	The entire reservoir.

Water	HR	HA	Description of Area Classified
Knott Creek Reservoir	1	3	The entire reservoir.
Little Humboldt River (N. Fork)	4	67	From the national forest boundary to its confluence with the south fork of the Little Humboldt River.
Little Humboldt River (S. Fork)	4	67	From the Elko-Humboldt county line to its confluence with the north fork of the Little Humboldt River.
Martin Creek	4	68, 69	From the national forest boundary downstream to the first diversion in T. 42 N., R. 40 E., M.D.B. & M.
Onion Valley Reservoir	1	2	The entire reservoir.
Quinn River	2	28, 29, 30, 33	From the point of confluence of the east fork and south fork to the Ft. McDermitt Indian Reservation diversion dam.
Summit Lake	2	27	The entire lake.

#### LANDER COUNTY

Water	HR	HA	Description of Area Classified
Big Creek	4	56	From the east boundary of the United States Forest Service Big Creek Campground to the first diversion dam.
Birch Creek	10	137	From the national forest boundary to the first diversion dam.
Groves Lake	10	137	The entire lake.
Iowa Canyon Reservoir	4	55	The entire reservoir.
Kingston Creek	10	137	Below Groves Lake.
Reese River	4	56, 58, 59	From its confluence with Indian Creek to old U.S. Highway 50.
Willow Creek Reservoir	10	131	The entire reservoir.

#### LINCOLN COUNTY

Water	HR	HA	Description of Area Classified
Clover Creek	13	204	From its origin to the point where it crosses the east range line of T. 4 S., R. 67 E., M.D.B. & M.
Eagle Valley Creek	13	200, 201	From its headwaters to Eagle Valley Reservoir.
Eagle Valley Reservoir	13	201	The entire reservoir.

#### NYE COUNTY

Water	HR	HA	Description of Area Classified
Adams McGill Reservoir	13	207	The entire reservoir.
Currant Creek	10	173	From the national forest boundary to Currant.

Water	HR	HA	Description of Area Classified
Dacey Reservoir	13	207	The entire reservoir.
Hay Meadow Reservoir	13	207	The entire reservoir.
Reese River	4	56	From its confluence with Indian Creek to old U.S. Highway 50.
Sunnyside Creek	13	207	From its origin to the Adams McGill Reservoir.

#### WASHOE COUNTY

Water	HR	HA	Description of Area Classified
Davis Lake	6	89	The entire lake.
Franktown Creek	4	89	From the first irrigation diversion to Washoe Lake.
Galena Creek	6	88	From the east line of section 18, T. 17 N., R. 19 E., M.D.B. & M. to gaging station number 10-348900 located in the SW 1/4 SW 1/4, section 2, T. 17 N., R. 19 E., M.D.B. & M.
Hobart Reservoir and tributaries	6	89	The entire system.
Hunter Creek	6	91	From Hunter Lake to its confluence with the Truckee River.
Ophir Creek	6	89	From old U.S. Highway 395 to Washoe Lake.
Squaw Creek Reservoir	2	21	The entire reservoir.
Wall Canyon Reservoir	1	16	The entire reservoir.
White's Creek	6	87	Below the east line of section 33, T. 18 N., R. 19 E., M.D.B. & M.

#### WHITE PINE COUNTY

Water	HR	HA	Description of Area Classified
Cave Lake	10	179	The entire lake.
Illipah Reservoir	10	174	The entire reservoir.
Silver Creek Reservoir	11	195	The entire reservoir.
White River	13	207	From the national forest boundary to its confluence with Ellison Creek.

[Environmental Comm'n, Water Pollution Control Reg. §§ 4.2.2-4.2.2.3, eff. 5-2-78]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.123)

#### **NAC 445A.126 Class C waters: Description; beneficial uses; quality standards.**

1. Class C waters include waters or portions of waters which are located in areas of moderate-to-urban human habitation, where industrial development is present in moderate amounts, agricultural practices are intensive and where the watershed is considerably altered by man's activity.

2. The beneficial uses of class C water are municipal or domestic supply, or both, following complete treatment, irrigation, watering of livestock, aquatic life, propagation

of wildlife, recreation involving contact with the water, recreation not involving contact with the water, and industrial supply.

3. The quality standards for class C waters are:

Item	Specifications
(a) Floating solids, solids that will settle or sludge deposits.	Only those amounts attributable to the activities of man which will not make the receiving waters injurious to fish or wildlife or impair the waters for any beneficial use established for this class.
(b) Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.
(c) Toxic materials, oils, deleterious substances, colored or other wastes or heated or cooled liquids.	Only such amounts as will not render the receiving waters injurious to fish and wildlife or impair the waters for any beneficial use established for this class.
(d) pH.	Range between 6.5 to 8.5.
(e) Dissolved oxygen.	For waters with trout, not less than 6.0 mg/l; for waters without trout, not less than 5.0 mg/l.
(f) Temperature.	Must not exceed 20°C for waters with trout or 34°C for waters without trout. Allowable temperature increase above normal receiving water temperature: 3°C.
(g) Fecal coliform.	The more stringent of the following apply:  (1) The fecal coliform concentration must not exceed a geometric mean of 1000 per 100 milliliters nor may more than 20 percent of total samples exceed 2400 per 100 milliliters. (2) The annual geometric mean of fecal coliform concentration must not exceed that characteristic of natural conditions by more than 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed that characteristic of natural conditions by more than 400 per 100 milliliters. (3) The fecal coliform concentration, based on a minimum of 5 samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters, nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 milliliters. This is applicable only to those waters used for primary contact recreation.
(h) Total phosphates.	Must not exceed 1.0 mg/l.
(i) Total dissolved solids.	Must not exceed 500 mg/l or one-third above that characteristic of natural conditions (whichever is less).

4. The waters classified as class C waters are:

TABLE C

Class C Waters

HR-Hydrographic region  
HA-Hydrographic area

CHURCHILL COUNTY

Water	HR	HA	Description of Area Classified
Diagonal Drain	8	101	Its entire length.
Harmon Reservoir	8	101	The entire reservoir.
Indian Lakes	8	101	All the lakes, including Upper Lake, Likes Lake, Papoose Lake, Big Indian Lake, Little Cottonwood Lake, Big Cottonwood Lake and East Lake.
Lower Carson River	8	101	From Lahontan Reservoir to Carson Sink (the natural channel).
Rattlesnake Reservoir	8	101	Also known as S-Line Reservoir, the entire reservoir.
South Carson Lake	8	101	Also known as Government Pasture or the Greenhead Gun Club, the entire lake.
Stillwater Marsh	8	101	All that area of Stillwater Marsh east of Westside Road and north of the community of Stillwater.
V-Line Canal	8	101	From the Carson diversion dam to its division into the S & L Canals.

CLARK COUNTY

Water	HR	HA	Description of Area Classified
Bowman Reservoir	13	220	The entire reservoir.
Muddy (Moapa) River	13	219	From its origin (but not including source springs) to its confluence with Lake Mead.

ELKO COUNTY

Water	HR	HA	Description of Area Classified
Maggie Creek	4	51	From its confluence with Jack Creek to the Humboldt River.

ESMERALDA COUNTY

Water	HR	HA	Description of Area Classified
Fish Lake	10	117	The entire lake.

#### EUREKA COUNTY

Water	HR	HA	Description of Area Classified
J.D. Ponds	4	53	The entire area.

#### HUMBOLDT COUNTY

Water	HR	HA	Description of Area Classified
Little Humboldt River	4	67	Its entire length.

#### LANDER COUNTY

Water	HR	HA	Description of Area Classified
Reese River	4	56, 58, 59	North of old U.S. Highway 50.
Rock Creek	4	61, 62, 63	Below Squaw Valley Ranch.

#### LINCOLN COUNTY

Water	HR	HA	Description of Area Classified
Echo Canyon Reservoir	13	199	The entire reservoir.
Nesbitt Lake	13	209	The entire lake.
Pahranagat Reservoir	13	209	The entire reservoir.
Schroeder Reservoir	13	222	The entire reservoir.

#### LYON COUNTY

Water	HR	HA	Description of Area Classified
Mason Wildlife Area	9	109	All surface water impoundments.

#### MINERAL COUNTY

Water	HR	HA	Description of Area Classified
Weber Reservoir	9	110	Entire reservoir.

#### PERSHING COUNTY

Water	HR	HA	Description of Area Classified
Humboldt River	4	73	From Woolsey to Rodgers Dam.

#### STOREY COUNTY

Water	HR	HA	Description of Area Classified
Tracy Pond	6	83	The entire area.

## WASHOE COUNTY

Water	HR	HA	Description of Area Classified
Galena Creek	6	88	From gaging station number 10-348900 located in the SW 1/4, SW 1/4, section 2, T. 17 N., R. 19 E., M.D.B. & M., to its confluence with Steamboat Creek.
Steamboat Creek	6	87, 88, 89	From Little Washoe Lake to gaging station number 10-349300 located in the S 1/2, section 33, T. 18 N., R. 20 E., M.D.B. & M.
Washoe Lakes	6	89	The entire lakes.

## WHITE PINE COUNTY

Water	HR	HA	Description of Area Classified
Comins Reservoir	10	179	The entire reservoir.
Gleason Creek	10	179	From its origin to State Highway 44.
Snake Creek	11	195	From control point above fish hatchery to the Nevada-Utah state line.
Willow Reservoir	10	179	The entire reservoir.

[Environmental Comm'n, Water Pollution Control Reg. §§ 4.2.3-4.2.3.2, eff. 5-2-78; § 4.2.3.3, eff. 5-2-78; A 1-25-79]—(NAC A 12-3-84; 9-13-85; 5-27-93)—(Substituted in revision for NAC 445.124)

### **NAC 445A.127 Class D waters: Description; beneficial uses; quality standards.**

1. Class D waters include waters or portions of waters located in areas of urban development, highly industrialized or intensively used for agriculture or a combination of all the above and where effluent sources include a multiplicity of waste discharges from the highly altered watershed.

2. The beneficial uses of class D waters are recreation not involving contact with the water, aquatic life, propagation of wildlife, irrigation, watering of livestock, and industrial supply except for food processing purposes.

3. The quality standards for class D waters are:

Item	Specifications
(a) Floating solids, settleable solids or sludge deposits.	Only such amounts attributable to the activities of man which will not impair the receiving waters for any beneficial use established for this class.
(b) Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.
(c) Toxic materials, oils, deleterious substances, colored or other wastes or heated or cooled liquid.	Only such amounts as will not impair the receiving waters for any beneficial use established for this class.
(d) pH.	Range between 6.0 and 9.0.
(e) Dissolved oxygen.	Not less than 3.0.

4. The waters classified as class D waters are:

TABLE D

Class D Waters

HR-Hydrographic region  
HA-Hydrographic area

CHURCHILL COUNTY

Water	HR	HA	Description of Area Classified
Stillwater Marsh	8	101	All that area of Stillwater Marsh not designated as class C.

HUMBOLDT COUNTY

Water	HR	HA	Description of Area Classified
Quinn River	2	33	From the Idaho-Nevada state line in section 31, T. 48 N., R. 38 E., to the confluence with the main tributary of the Quinn River at the south section line of section 17, T. 47 N., R. 38 E.

PERSHING COUNTY

Water	HR	HA	Description of Area Classified
Humboldt River	4	73	Rodgers Dam to and including Humboldt Sink.

STOREY COUNTY

Water	HR	HA	Description of Area Classified
Lagomarsino Creek	6	83	The entire length.

WASHOE COUNTY

Water	HR	HA	Description of Area Classified
Steamboat Creek	6	87	From gaging station number 10-349300 located in S 1/2, section 33, T. 18 N., R. 20 E., M.D.B. & M. to its confluence with the Truckee River.



## WHITE PINE COUNTY

Water	HR	HA	Description of Area Classified
Gleason Creek	10	179	From State Highway 44 to its confluence with Murray Creek.
Murray Creek	10	179	From its confluence with Gleason Creek to the south line of section 35, T. 17 N., R. 63 E., M.D.B. & M.

[Environmental Comm'n, Water Pollution Control Reg. §§ 4.2.4, 4.2.4.2 & 4.2.4.3, eff. 5-2-78; § 4.2.4.1, eff. 5-2-78; A 11-21-79]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.125)

**NAC 445A.128 Definitions.** As used in NAC 445A.143 to 445A.225, inclusive, the terms and symbols defined in NAC 445A.129 to 445A.142, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Environmental Comm'n, eff. 6-29-84; A 11-9-95)

**NAC 445A.129 “A-Avg.” or “A.A.” defined.** “A-Avg.” or “A.A.” means annual average.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1282)

**NAC 445A.130 “Δ” defined.** “Δ” means the difference between two points.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1284)

**NAC 445A.131 “Δ pH” defined.** “Δ pH” means the change in pH.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1286)

**NAC 445A.132 “Δ T” defined.** “Δ T” means the change in temperature.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1288)

**NAC 445A.133 “Geometric mean” defined.** “Geometric mean” means the mean of n positive numbers obtained by taking the nth root of the product of the numbers.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.129)

**NAC 445A.134 “mg/l” defined.** “mg/l” means the concentration of a substance, in milligrams, present in one liter of the water.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1292)

**NAC 445A.135 “No./100ml” defined.** “No./100ml” means the number of organisms present in 100 milliliters of the water.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1294)

**NAC 445A.136 “NTU” defined.** “NTU” means nephelometric turbidity units, a measure of turbidity.

(Added to NAC by Environmental Comm’n, eff. 6-29-84)—(Substituted in revision for NAC 445.1296)

**NAC 445A.137 “PCU” defined.** “PCU” means platinum cobalt unit, a measure of color.

(Added to NAC by Environmental Comm’n, eff. 6-29-84)—(Substituted in revision for NAC 445.1298)

**NAC 445A.138 “pH unit” defined.** “pH unit” means the negative log of the hydrogen ion concentration.

(Added to NAC by Environmental Comm’n, eff. 6-29-84)—(Substituted in revision for NAC 445.130)

**NAC 445A.139 “SAR” defined.** “SAR” means sodium adsorption ratio.

(Added to NAC by Environmental Comm’n, eff. 6-29-84)—(Substituted in revision for NAC 445.1302)

**NAC 445A.140 “S.V.” defined.** “S.V.” means single value.

(Added to NAC by Environmental Comm’n, eff. 6-29-84)—(Substituted in revision for NAC 445.1304)

**NAC 445A.141 “≥” defined.** “≥” means greater than or equal to.

(Added to NAC by Environmental Comm’n, eff. 6-29-84)—(Substituted in revision for NAC 445.1306)

**NAC 445A.142 “≤” defined.** “≤” means less than or equal to.

(Added to NAC by Environmental Comm’n, eff. 6-29-84)—(Substituted in revision for NAC 445.1308)

**NAC 445A.143 Cooperation regarding Colorado River; salinity standards. (NRS 445A.425, 445A.520)**

1. The State of Nevada will cooperate with the other Colorado River Basin states and the Federal Government to support and carry out the conclusions and recommendations adopted April 27, 1972, by the reconvened 7th session of the conference in the matter of pollution of interstate waters of the Colorado River and its tributaries.

2. Pursuant to subsection 1, the flow weighted annual average concentrations for total dissolved solids in mg/l at the three lower main stem stations of the Colorado River are as follows:

Below Hoover Dam .....	723
Below Parker Dam.....	747
Imperial Dam .....	879

[Environmental Comm’n, Water Pollution Control Reg. Appendix B, eff. 5-2-78]—(NAC A 12-3-84; R017-99, 9-27-99)

**NAC 445A.144 Standards for toxic materials applicable to designated waters.**

Except as otherwise provided in this section, the following standards for toxic materials are applicable to the waters specified in NAC 445A.123 to 445A.127, inclusive, and 445A.145 to 445A.225, inclusive. If the standards are exceeded at a site and are not economically controllable, the commission will review and adjust the standards for the site.

Chemical	Municipal or Domestic Supply (µg/l)	Aquatic Life (µg/l)	Irrigation (µg/l)	Watering of Livestock (µg/l)
Antimony	146 <sup>a</sup>	-	-	-
Arsenic	50 <sup>b</sup>	-	100 <sup>c</sup>	200 <sup>d</sup>
Arsenic (III)	-	-	-	-
1-hour average	-	342 <sup>a,g</sup>	-	-
96-hour average	-	180 <sup>a,g</sup>	-	-
Barium	2,000 <sup>b</sup>	-	-	-
Beryllium	0 <sup>a</sup>	-	100 <sup>c</sup>	-
hardness <75 mg/l	-	-	-	-
hardness ≥ 75 mg/l	-	-	-	-
Boron	-	-	750 <sup>a</sup>	5,000 <sup>d</sup>
Cadmium	5 <sup>b</sup>	-	10 <sup>d</sup>	50 <sup>d</sup>
1-hour average	-	$0.85\exp\{1.128 \ln(H)-3.828\}^{a,g}$	-	-
96-hour average	-	$0.85\exp\{0.7852 \ln(H)-3.490\}^{a,g}$	-	-
Chromium (total)	100 <sup>b</sup>	-	100 <sup>d</sup>	1,000 <sup>d</sup>
Chromium (VI)	-	-	-	-
1-hour average	-	15 <sup>a,g</sup>	-	-
96-hour average	-	10 <sup>a,g</sup>	-	-
Chromium (III)	-	-	-	-
1-hour average	-	$0.85\exp\{0.8190 \ln(H)+3.688\}^{a,g}$	-	-
96-hour average	-	$0.85\exp\{0.8190 \ln(H)+1.561\}^{a,g}$	-	-
Copper	-	-	200 <sup>d</sup>	500 <sup>d</sup>
1-hour average	-	$0.85\exp\{0.9422 \ln(H)-1.464\}^{a,g}$	-	-
96-hour average	-	$0.85\exp\{0.8545 \ln(H)-1.465\}^{a,g}$	-	-
Cyanide	200 <sup>a</sup>	-	-	-
1-hour average	-	22 <sup>a</sup>	-	-
96-hour average	-	5.2 <sup>a</sup>	-	-
Fluoride	-	-	1,000 <sup>d</sup>	2,000 <sup>d</sup>
Iron	-	1,000 <sup>a</sup>	5,000 <sup>d</sup>	-
Lead	50 <sup>a,b</sup>	-	5,000 <sup>d</sup>	100 <sup>d</sup>
1-hour average	-	$0.50\exp\{1.273 \ln(H)-1.460\}^{a,g}$	-	-
96-hour average	-	$0.25\exp\{1.273 \ln(H)-4.705\}^{a,g}$	-	-
Manganese	-	-	200 <sup>d</sup>	-
Mercury	2 <sup>b</sup>	-	-	10 <sup>d</sup>
1-hour average	-	2.0 <sup>a,g</sup>	-	-
96-hour average	-	0.012 <sup>a</sup>	-	-
Molybdenum	-	19 <sup>c</sup>	-	-
Nickel	13.4 <sup>a</sup>	-	200 <sup>d</sup>	-
1-hour average	-	$0.85\exp\{0.8460 \ln(H)+3.3612\}^{a,g}$	-	-
96-hour average	-	$0.85\exp\{0.8460 \ln(H)+1.1645\}^{a,g}$	-	-
Selenium	50 <sup>b</sup>	-	20 <sup>d</sup>	50 <sup>d</sup>
1-hour average	-	20 <sup>a</sup>	-	-
96-hour average	-	5.0 <sup>a</sup>	-	-
Silver	-	$0.85\exp\{1.72 \ln(H)-6.52\}^{a,g}$	-	-
Sulfide	-	-	-	-
undissociated hydrogen sulfide	-	2 <sup>a</sup>	-	-
Thallium	13 <sup>a</sup>	-	-	-
Zinc	-	-	2,000 <sup>d</sup>	25,000 <sup>d</sup>
1-hour average	-	$0.85\exp\{0.8473 \ln(H)+0.8604\}^{a,g}$	-	-
96-hour average	-	$0.85\exp\{0.8473 \ln(H)+0.7614\}^{a,g}$	-	-
Acrolein	320 <sup>a</sup>	-	-	-

Chemical	Municipal or Domestic Supply (µg/l)	Aquatic Life (µg/l)	Irrigation (µg/l)	Watering of Livestock (µg/l)
Aldrin	0 <sup>a</sup>	3 <sup>a</sup>	-	-
Chlordane	0 <sup>a</sup>	2.4 <sup>a</sup>	-	-
24-hour average	-	0.0043 <sup>a</sup>	-	-
2,4-D	100 <sup>a,b</sup>	-	-	-
DDT & metabolites	0 <sup>a</sup>	1.1 <sup>a</sup>	-	-
24-hour average	-	0.0010 <sup>a</sup>	-	-
Demeton	-	0.1 <sup>a</sup>	-	-
Dieldrin	0 <sup>a</sup>	2.5 <sup>a</sup>	-	-
24-hour average	-	0.0019 <sup>a</sup>	-	-
Endosulfan	75 <sup>a</sup>	0.22 <sup>a</sup>	-	-
24-hour average	-	0.056 <sup>a</sup>	-	-
Endrin	0.2 <sup>b</sup>	0.18 <sup>a</sup>	-	-
24-hour average	-	0.0023 <sup>a</sup>	-	-
Guthion	-	0.01 <sup>a</sup>	-	-
Heptachlor	-	0.52 <sup>a</sup>	-	-
24-hour average	-	0.0038 <sup>a</sup>	-	-
Lindane	4 <sup>b</sup>	2.0 <sup>a</sup>	-	-
24-hour average	-	0.080 <sup>a</sup>	-	-
Malathion	-	0.1 <sup>a</sup>	-	-
Methoxychlor	100 <sup>a,b</sup>	0.03 <sup>a</sup>	-	-
Mirex	0 <sup>a</sup>	0.001 <sup>a</sup>	-	-
Parathion	-	-	-	-
1-hour average	-	0.065 <sup>a</sup>	-	-
96-hour average	-	0.013 <sup>a</sup>	-	-
Silvex (2,4,5-TP)	10 <sup>a,b</sup>	-	-	-
Toxaphene	5 <sup>b</sup>	-	-	-
1-hour average	-	0.73 <sup>a</sup>	-	-
96-hour average	-	0.0002 <sup>a</sup>	-	-
Benzene	5 <sup>b</sup>	-	-	-
Monochlorobenzene	488 <sup>a</sup>	-	-	-
m-dichlorobenzene	400 <sup>a</sup>	-	-	-
o-dichlorobenzene	400 <sup>a</sup>	-	-	-
p-dichlorobenzene	75 <sup>b</sup>	-	-	-
Ethylbenzene	1,400 <sup>a</sup>	-	-	-
Nitrobenzene	19,800 <sup>a</sup>	-	-	-
1,2-dichloroethane	5 <sup>b</sup>	-	-	-
1,1,1-trichloroethane (TCA)	200 <sup>b</sup>	-	-	-
Bis (2-chloroisopropyl) ether	34.7 <sup>a</sup>	-	-	-
Chloroethylene (vinyl chloride)	2 <sup>b</sup>	-	-	-
1,1-dichloroethylene	7 <sup>b</sup>	-	-	-
Trichloroethylene (TCE)	5 <sup>b</sup>	-	-	-
Hexachlorocyclopentadiene	206 <sup>a</sup>	-	-	-
Isophorone	5,200 <sup>a</sup>	-	-	-
Trihalomethanes (total) <sup>f</sup>	100 <sup>b</sup>	-	-	-
Tetrachloromethane (carbon tetrachloride)	5 <sup>b</sup>	-	-	-
Phenol	3,500 <sup>a</sup>	-	-	-
2,4-dichlorophenol	3,090 <sup>a</sup>	-	-	-
Pentachlorophenol	1,010 <sup>a</sup>	-	-	-
1-hour average	-	exp{1.005 (pH)-4.830} <sup>a</sup>	-	-
96-hour average	-	exp{1.005 (pH)-5.290} <sup>a</sup>	-	-
Dinitrophenols	70 <sup>a</sup>	-	-	-
4,6-dinitro-2-methylphenol	13.4 <sup>a</sup>	-	-	-
Dibutyl phthalate	34,000 <sup>a</sup>	-	-	-
Diethyl phthalate	350,000 <sup>a</sup>	-	-	-
Dimethyl phthalate	313,000 <sup>a</sup>	-	-	-
Di-2-ethylhexyl phthalate	15,000 <sup>a</sup>	-	-	-
Polychlorinated biphenyls (PCBs)	0 <sup>a</sup>	-	-	-

Chemical	Municipal or Domestic Supply (µg/l)	Aquatic Life (µg/l)	Irrigation (µg/l)	Watering of Livestock (µg/l)
24-hour average	-	0.014 <sup>a</sup>	-	-
Fluoranthene (polynuclear aromatic hydrocarbon)	42 <sup>a</sup>	-	-	-
Dichloropropenes	87 <sup>a</sup>	-	-	-
Toluene	14,300 <sup>a</sup>	-	-	-

#### Footnotes and References

- (1) Single concentration limits and 24-hour average concentration limits must not be exceeded. One-hour average and 96-hour average concentration limits may be exceeded only once every 3 years. See reference a.
- (2) Hardness (H) is expressed as mg/l CaCO<sub>3</sub>.
- (3) If a criterion is less than the detection limit of a method that is acceptable to the division, laboratory results which show that the substance was not detected will be deemed to show compliance with the standard unless other information indicates that the substance may be present.
- (4) If a standard does not exist for each designated beneficial use, a person who plans to discharge waste must demonstrate that no adverse effect will occur to a designated beneficial use. If the discharge of a substance will lower the quality of the water, a person who plans to discharge waste must meet the requirements of NRS 445A.565.
- (5) The standards for metals are expressed as total recoverable, unless otherwise noted.
  - a. U.S. Environmental Protection Agency, Pub. No. EPA 440/5-86-001, Quality Criteria for Water (Gold Book) (1986).
  - b. Federal Maximum Contaminant Level (MCL), 40 C.F.R. §§ 141.11, 141.12, 141.61 and 141.62 (1992).
  - c. U.S. Environmental Protection Agency, Pub. No. EPA 440/9-76-023, Quality Criteria for Water (Red Book) (1976).
  - d. National Academy of Sciences, Water Quality Criteria (Blue Book) (1972).
  - e. California State Water Resources Control Board, Regulation of Agricultural Drainage to the San Joaquin River: Appendix D, Water Quality Criteria (March 1988 revision).
  - f. The criteria for trihalomethanes (total) is the sum of the concentrations of bromodichloromethane, dibromochloromethane, tribromomethane (bromoform) and trichloromethane (chloroform). See reference b.
  - g. This standard applies to the dissolved fraction.

(Added to NAC by Environmental Comm'n, eff. 9-13-85; A 9-25-90; 7-5-94; 11-29-95)

#### **NAC 445A.145 Control points: Prescription and applicability of numerical standards for water quality; designation of beneficial uses.**

1. Control points are locations where water quality criteria are specified. Criteria so specified apply to all surface waters of Nevada in the watershed upstream from the control point or to the next upstream control point or to the next water named in NAC 445A.123.
2. If there are no control points downstream from a particular control point, the criteria for that control point also apply to all surface waters of Nevada in the watershed downstream of the control point or to the next water named in NAC 445A.123.
3. Each standard is set to protect the beneficial use which is most sensitive with respect to that particular standard.
4. NAC 445A.147 to 445A.212, inclusive, prescribe numerical standards for water quality and designate beneficial uses at particular control points.  
 [Environmental Comm'n, Water Pollution Control Reg. § 4.2.5, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 11-22-82; 9-25-90)—(Substituted in revision for NAC 445.134)

**NAC 445A.146 Beneficial uses for Carson River.** The standards for water quality for the Carson River from Lahontan Dam to the state line are prescribed in NAC 445A.147 to 445A.158, inclusive. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation involving contact with the water;
4. Recreation not involving contact with water;
5. Industrial supply;
6. Municipal or domestic supply, or both;
7. Propagation of wildlife; and
8. Propagation of aquatic life, more specifically, the species of major concern are:
  - (a) West Fork at the state line, rainbow trout and brown trout.
  - (b) Bryant Creek, rainbow trout and brown trout.
  - (c) East Fork Carson at the state line, rainbow trout and brown trout.
  - (d) From the East Fork Carson at the state line to near Highway 395 south of Gardnerville, rainbow trout and brown trout.
  - (e) From the East Fork Carson near Highway 395 south of Gardnerville to Muller Lane, rainbow trout and brown trout.
  - (f) From the Carson River at Genoa Lane to the East Fork Carson at Muller Lane and to the West Fork Carson at the state line, catfish, rainbow trout and brown trout.
  - (g) From the Carson River at Cradlebaugh Bridge to Genoa Lane, catfish, rainbow trout and brown trout.
  - (h) From the Carson River at Mexican Ditch Gage to Cradlebaugh Bridge, rainbow trout and brown trout.
  - (i) From the Carson River near New Empire to Mexican Ditch Gage, smallmouth bass, rainbow trout and brown trout.
  - (j) From the Carson River at Dayton Bridge to New Empire, walleye, channel catfish and white bass.
  - (k) From the Carson River at Weeks to the Dayton Bridge, walleye, channel catfish and white bass.
  - (l) From Lake Lahontan at Lahontan Dam to Weeks, walleye, channel catfish and white bass.

(Added to NAC by Environmental Comm'n, eff. 12-3-84)—(Substituted in revision for NAC 445.13405)

**NAC 445A.147 Carson River: West Fork at the state line. (NRS 445A.425, 445A.520)**

**STANDARDS OF WATER QUALITY  
Carson River**

Control Point at the West Fork at the state line. The limits of this table apply only to the West Fork at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-May : $\leq 13^\circ\text{C}$ June : $\leq 17^\circ\text{C}$ July : $\leq 21^\circ\text{C}$ Aug.-Oct. : $\leq 22^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	7.4 - 8.4 —	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : $\leq 0.016$ S.V. : $\leq 0.033$	A-Avg. : $\leq 0.10$	Aquatic life, <sup>b</sup> recreation involving contact with water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	A-Avg. : $\leq 0.4$ S.V. : $\leq 0.5$	Nitrate S.V. : $\leq 10$ Nitrite S.V. : $\leq 0.6$	Aquatic life, <sup>b</sup> municipal or domestic supply, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : $\geq 5.0$ Jun.-Oct. : $\geq 6.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	A-Avg. : $\leq 15$ —	S.V. : $\leq 25$	Aquatic life. <sup>b</sup>
Turbidity - NTU	A-Avg. : $\leq 3$ S.V. : $\leq 5$	S.V. : $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V. : $\leq 75$	Municipal or domestic supply. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg. : $\leq 70$ S.V. : $\leq 95$	A-Avg. : $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : $\leq 3$ S.V. : $\leq 5$	S.V. : $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— S.V. : $\leq 4$	S.V. : $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg. : $\leq 1$	A-Avg. : $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M. : $\leq 105$ —	$\leq 200/400c$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 1, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

**NAC 445A.148 Carson River: Bryant Creek near the state line. (NRS 445A.425, 445A.520)**

**STANDARDS OF WATER QUALITY  
Carson River**

Control Point at Bryant Creek near the state line. The limits of this table apply only to Bryant Creek near the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-May : $\leq 13^\circ\text{C}$ June : $\leq 17^\circ\text{C}$ July : $\leq 21^\circ\text{C}$ Aug.-Oct. : $\leq 22^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	— —	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : $\leq 0.036$ S.V. : $\leq 0.05$	A-Avg. : $\leq 0.10$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	A-Avg. : $\leq 0.6$ S.V. : $\leq 1.0$	Nitrate S.V. : $\leq 10$ Nitrite S.V. : $\leq 0.6$	Aquatic life, <sup>b</sup> municipal or domestic supply, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : $\geq 6.0$ Jun.-Oct. : $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : $\leq 25$	Aquatic life. <sup>b</sup>
Turbidity - NTU	— —	S.V. : $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V. : $\leq 10$	Municipal or domestic supply. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg. : $\leq 375$ S.V. : $\leq 420$	A-Avg. : $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : $\leq 6$ S.V. : $\leq 7$	S.V. : $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— —	S.V. : $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg. : $\leq 1$	A-Avg. : $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M. : $\leq 50$ S.V. : $\leq 90$	$\leq 200/400^c$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 2, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)



**NAC 445A.149 Carson River: East Fork at the state line. (NRS 445A.425, 445A.520)**

**STANDARDS OF WATER QUALITY  
Carson River**

Control Point at the East Fork at the state line. The limits of this table apply only to the East Fork at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-May: $\leq 13^\circ\text{C}$ June: $\leq 17^\circ\text{C}$ July: $\leq 21^\circ\text{C}$ Aug.-Oct.: $\leq 22^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	— —	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \pm 0.5$ Max.	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: $\leq 0.3$ S.V.: $\leq 0.65$	A-Avg.: $\leq 0.10$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 0.5$ S.V.: $\leq 1.1$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.6$	Aquatic life, <sup>b</sup> municipal or domestic supply, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V.: $\leq 25$	Aquatic life. <sup>b</sup>
Turbidity - NTU	A-Avg.: $\leq 5$ S.V.: $\leq 8$	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: $\leq 75$	Municipal or domestic supply. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg.: $\leq 145$ S.V.: $\leq 185$	A-Avg.: $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Chlorides - mg/l	A-Avg.: $\leq 3$ S.V.: $\leq 5$	S.V.: $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— S.V.: $\leq 3$	S.V.: $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg.: $\leq 2$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 40$ S.V.: $\leq 60$	$\leq 200/400^c$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 3, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

**NAC 445A.150 Carson River: East Fork at Highway 395, south of Gardnerville. (NRS 445A.425, 445A.520)**

**STANDARDS OF WATER QUALITY  
Carson River**

Control Point for East Fork at Highway 395, South of Gardnerville (Riverview). The limits of this table apply from Riverview Mobile Home Park to the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-May : $\leq 13^\circ\text{C}$ June : $\leq 17^\circ\text{C}$ July : $\leq 21^\circ\text{C}$ Aug.-Oct. : $\leq 22^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	7.5 - 8.6 —	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg. : $\leq 0.10$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : $\leq 0.4$ S.V. : $\leq 0.5$	Nitrate S.V. : $\leq 10$ Nitrite S.V. : $\leq 0.6$	Aquatic life, <sup>b</sup> municipal or domestic supply, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : $\geq 6.0$ Jun.-Oct. : $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. : $\leq 80$	Aquatic life. <sup>b</sup>
Turbidity - NTU	— —	S.V. : $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V. : $\leq 75$	Municipal or domestic supply. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg. : $\leq 120$ S.V. : $\leq 175$	A-Avg. : $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : $\leq 6$ S.V. : $\leq 10$	S.V. : $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— —	S.V. : $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg. : $\leq 2$	A-Avg. : $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform-No./100 ml	A.G.M. : $\leq 20$ S.V. : $\leq 85$	$\leq 200/400^c$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 4, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

**NAC 445A.151 Carson River: East Fork at Muller Lane. (NRS 445A.425, 445A.520)**

STANDARDS OF WATER QUALITY  
Carson River

Control Point at the East Fork at Muller Lane. The limits of this table apply only from East Fork at Muller Lane to Highway 395, South of Gardnerville (Riverview Mobile Home Park).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-May: $\leq 13^\circ\text{C}$ June: $\leq 17^\circ\text{C}$ July: $\leq 21^\circ\text{C}$ Aug.-Oct.: $\leq 22^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	7.4 - 8.7 —	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \pm 0.5 \text{ Max.}$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg.: $\leq 0.10$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 0.5$ S.V.: $\leq 0.8$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.6$	Aquatic life, <sup>b</sup> municipal or domestic supply, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V.: $\leq 80$	Aquatic life. <sup>b</sup>
Turbidity - NTU	—	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: $\leq 75$	Municipal or domestic supply. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg.: $\leq 180$ S.V.: $\leq 205$	A-Avg.: $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Chlorides - mg/l	A-Avg.: $\leq 8$ S.V.: $\leq 10$	S.V.: $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— —	S.V.: $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg.: $\leq 2$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform-No./100 ml	A.G.M.: $\leq 50$ —	$\leq 200/400^c$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 5, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

## NAC 445A.152 Carson River at Genoa Lane. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Carson River

Control Point at Genoa Lane. The limits of this table apply from Genoa Lane to the East Fork at Muller Lane and to the West Fork at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Apr. : $\leq 13^\circ\text{C}$ May-June : $\leq 17^\circ\text{C}$ Jul.-Oct. : $\leq 23^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	7.4 - 8.5 —	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg. : $\leq 0.10$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : $\leq 0.8$ S.V. : $\leq 1.3$	Nitrate S.V. : $\leq 10$ Nitrite S.V. : $\leq 0.6$	Aquatic life, <sup>b</sup> municipal or domestic supply, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia as (N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-Apr. : $\geq 6.0$ May-Oct. : $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : $\leq 80$	Aquatic life. <sup>b</sup>
Turbidity - NTU	— —	S.V. : $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V. : $\leq 75$	Municipal or domestic supply. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg. : $\leq 165$ S.V. : $\leq 220$	A-Avg. : $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : $\leq 8$ S.V. : $\leq 12$	S.V. : $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— —	S.V. : $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg. : $\leq 2$	A-Avg. : $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M. : $\leq 180$ —	$\leq 200/400^c$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E Coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The most restrictive beneficial use.
- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 5A, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

**NAC 445A.153 Carson River at Cradlebaugh Bridge. (NRS 445A.425, 445A.520)**

**STANDARDS OF WATER QUALITY  
Carson River**

Control Point at Cradlebaugh Bridge. The limits of this table apply from Cradlebaugh Bridge to Genoa Lane.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Apr. : $\leq 13^\circ\text{C}$ May-June : $\leq 17^\circ\text{C}$ Jul.-Oct. : $\leq 23^\circ\text{C}$  $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	7.5 - 8.4 —	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg. : $\leq 0.10$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : $\leq 85$ S.V. : $\leq 1.2$	Nitrate S.V. : $\leq 10$ Nitrite S.V. : $\leq 06$	Aquatic life, <sup>b</sup> municipal or domestic supply, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-Apr. : $\geq 6.0$ May-Oct. : $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. : $\leq 80$	Aquatic life. <sup>b</sup>
Turbidity - NTU	—	S.V. : $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V. : $\leq 75$	Municipal or domestic supply. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg. : $\leq 180$ S.V. : $\leq 230$	A-Avg. : $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : $\leq 8$ S.V. : $\leq 15$	S.V. : $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— —	S.V. : $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg. : $\leq 2$	A-Avg. : $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	— —	$\leq 200/400^c$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 6, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

**NAC 445A.154 Carson River at Mexican Ditch Gage. (NRS 445A.425, 445A.520)**

**STANDARDS OF WATER QUALITY  
Carson River**

Control Point at Mexican Ditch Gage. The limits of this table apply from Mexican Ditch Gage to Highway 395, at Cradlebaugh Bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Apr. : $\leq 13^\circ\text{C}$ May-June : $\leq 17^\circ\text{C}$ Jul.-Oct. : $\leq 23^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	7.4 - 8.5 —	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg. : $\leq 0.10$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : $\leq 0.8$ S.V. : $\leq 1.3$	Nitrate S.V. : $\leq 10$ Nitrite S.V. : $\leq 0.6$	Aquatic life, <sup>b</sup> municipal or domestic supply, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-Apr. : $\geq 6.0$ May-Oct. : $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : $\leq 80$	Aquatic life. <sup>b</sup>
Turbidity - NTU	— —	S.V. : $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V. : $\leq 75$	Municipal or domestic supply. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg. : $\leq 285$ S.V. : $\leq 360$	A-Avg. : $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : $\leq 17$ S.V. : $\leq 23$	S.V. : $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	A-Avg. : $\leq 24$ S.V. : $\leq 100$	S.V. : $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg. : $\leq 2$	A-Avg. : $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M. : $\leq 110$ S.V. : $\leq 295$	$\leq 200/400^c$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 6A, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

# **NAC 445A.155 Carson River near New Empire. (NRS 445A.425, 445A.520)**

## **STANDARDS OF WATER QUALITY Carson River**

Control Point near New Empire. The limits of this table apply from New Empire to the Mexican Ditch Gage.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-May : $\leq 18^\circ\text{C}$ Jun.Oct. : $\leq 23^\circ\text{C}$  $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	7.4 - 8.4 —	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg. : $\leq 0.10$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : $\leq 1.3$ S.V. : $\leq 1.7$	Nitrate S.V. : $\leq 10$ Nitrite S.V. : $\leq 06$	Aquatic life, <sup>b</sup> municipal or domestic supply, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V. : $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : $\leq 80$	Aquatic life. <sup>b</sup>
Turbidity - NTU	— —	S.V. : $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V. : $\leq 75$	Municipal or domestic supply. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg. : $\leq 260$ S.V. : $\leq 375$	A-Avg. : $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : $\leq 13$ S.V. : $\leq 24$	S.V. : $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— —	S.V. : $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg. : $\leq 2$	A-Avg. : $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	— —	$\leq 200/400^c$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 7, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

# **NAC 445A.156 Carson River at Dayton Bridge. (NRS 445A.425, 445A.520)**

## **STANDARDS OF WATER QUALITY Carson River**

Control Point at Dayton Bridge. The limits of this table apply from Dayton Bridge to New Empire.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Mar. : $\leq 11^\circ\text{C}$ Apr.-Jun. : $\leq 24^\circ\text{C}$ Jul.-Oct. : $\leq 28^\circ\text{C}$  $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	7.5 - 8.6 —	S.V.: 6.5 - 9.0 $\Delta\text{pH}$ : $\pm 0.5$ Max.	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg. : $\leq 0.1$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 1.2$ S.V.: $\leq 1.6$	Nitrate S.V. : $\leq 10$ Nitrite S.V. : $\leq 1.0$	Aquatic life, <sup>b</sup> municipal or domestic supply, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V. : $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : $\leq 80$	Aquatic life. <sup>b</sup>
Turbidity - NTU	A-Avg.: $\leq 12$ S.V.: $\leq 25$	S.V. : $\leq 50$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V. : $\leq 75$	Municipal or domestic supply. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg.: $\leq 250$ S.V.: $\leq 400$	A-Avg. : $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Chlorides - mg/l	A-Avg.: $\leq 10$ S.V.: $\leq 18$	S.V. : $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— —	S.V. : $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg.: $\leq 2$	A-Avg. : $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 50$ S.V.: $\leq 280$	$\leq 200/400^c$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 12-3-84; A 9-15-94; R099-02, 12-17-2002)



## NAC 445A.157 Carson River at Weeks. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Carson River

Control Point at Weeks (Ft. Churchill). The limits of this table apply from the U.S. Highway 95 Bridge at Weeks to the Dayton Bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Mar. : $\leq 11^\circ\text{C}$ Apr.-Jun. : $\leq 24^\circ\text{C}$ Jul.-Oct. : $\leq 28^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	7.5 - 8.5 —	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg. : $\leq 0.1$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : $\leq 0.6$ S.V. : $\leq 1.1$	Nitrate S.V. : $\leq 10$ Nitrite S.V. : $\leq 1.0$	Aquatic life, <sup>b</sup> municipal or domestic supply, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V. : $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : $\leq 80$	Aquatic life. <sup>b</sup>
Turbidity - NTU	A-Avg. : $\leq 25$ —	S.V. : $\leq 50$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V. : $\leq 75$	Municipal or domestic supply. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg. : $\leq 250$ S.V. : $\leq 380$	A-Avg. : $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : $\leq 10$ S.V. : $\leq 18$	S.V. : $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	A-Avg. : $\leq 100$ S.V. : $\leq 140$	S.V. : $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg. : $\leq 2$	A-Avg. : $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M. : $\leq 90$ S.V. : $\leq 240$	$\leq 200/400^c$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The most restrictive beneficial use.
- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 8, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

# **NAC 445A.158 Carson River at Lahontan Dam. (NRS 445A.425, 445A.520)**

## STANDARDS OF WATER QUALITY Carson River

Control Point at Lahontan Dam. The limits of this table apply from Lahontan Dam to the U.S. Highway 95 bridge at Weeks (Ft. Churchill).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Mar.: $\leq 11^\circ\text{C}$ Apr.-Jun.: $\leq 24^\circ\text{C}$ Jul.-Oct.: $\leq 28^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	—	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \pm 0.5$ Max.	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	—	S.V.: $\leq 0.06$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 1.3$ S.V.: $\leq 1.7$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 1.0$	Aquatic life, <sup>b</sup> municipal or domestic supply, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	—	S.V.: $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V.: $\leq 25$	Aquatic life. <sup>b</sup>
Turbidity - NTU	A-Avg.: $\leq 15$ S.V.: $\leq 27$	S.V.: $\leq 50$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: $\leq 75$	Municipal or domestic supply. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg.: $\leq 175$ S.V.: $\leq 225$	A-Avg.: $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Chlorides - mg/l	A-Avg.: $\leq 9$ S.V.: $\leq 15$	S.V.: $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	A-Avg.: $\leq 35$ S.V.: $\leq 50$	S.V.: $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg.: $\leq 2$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 25$ S.V.: $\leq 75$	$\leq 200/400^c$	Recreation involving contact with the water <sup>b</sup> , recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 235$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 9, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; R099-02, 12-17-2002)

**NAC 445A.159 Beneficial uses for Walker River. (NRS 445A.425, 445A.520)**

The standards of water quality for the Walker River from Walker Lake to the state line are prescribed in NAC 445A.160 to 445A.169, inclusive. The beneficial uses for this area are:

1. Irrigation;
  2. Watering of livestock;
  3. Recreation involving contact with the water;
  4. Recreation not involving contact with the water;
  5. Industrial supply;
  6. Municipal or domestic supply, or both;
  7. Propagation of wildlife; and
  8. Propagation of aquatic life, and more specifically, the species of major concern are:
    - (a) In the West Walker River at the state line, mountain whitefish, rainbow trout and brown trout;
    - (b) In Topaz Lake, rainbow trout, cutthroat trout, brown trout, kokone salmon and silver salmon;
    - (c) In the West Walker River from Wellington to the state line, mountain whitefish, rainbow trout and brown trout;
    - (d) In the West Walker River from its confluence with the East Walker River to Wellington, brown trout and rainbow trout;
    - (e) In Sweetwater Creek, mountain whitefish, brown trout, brook trout and rainbow trout;
    - (f) In the East Walker River at the state line, mountain whitefish, rainbow trout and brown trout;
    - (g) In the East Walker River from Bridge B-1475 to the state line, mountain whitefish, rainbow trout and brown trout;
    - (h) In the East Walker River from its confluence with the West Walker River to Bridge B-1475, brown trout and rainbow trout;
    - (i) In the Walker River from Weber Reservoir to the confluence of the East Walker River and West Walker River, channel catfish and largemouth bass;
    - (j) In the Walker River from the inlet to Walker Lake to Weber Reservoir, channel catfish, largemouth bass and, from February through June when an adequate flow exists, adult Lahontan cutthroat trout and adult rainbow trout; and
    - (k) In Desert Creek, brown trout, brook trout and rainbow trout.
- (Added to NAC by Environmental Comm'n, eff. 9-13-85; A by R128-01, 1-18-2002)

## NAC 445A.160 West Walker River at the state line. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY West Walker River

Control Point at the West Walker River at the state line. The limits of this table apply only to the West Walker River at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	July-Oct.: $\leq 22^{\circ}\text{C}$ $\Delta T = 0^{\circ}\text{C}^a$	Nov.-Apr.: $\leq 13^{\circ}\text{C}$ May-Jun.: $\leq 17^{\circ}\text{C}$ Jul.-Oct.: $\leq 23^{\circ}\text{C}$ $\Delta T \leq 2^{\circ}\text{C}^a$	Propagation of aquatic life and recreation involving contact with the water.
PH Single Value	—	Within range 6.5-9.0 SU $\Delta\text{pH}: \pm 0.5 \text{ SU Max.}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average	— —	$\leq 0.1 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrogen  $\leq 0.6 \text{ mg/l}$ $\leq 0.9 \text{ mg/l}$	  Nitrate: $\leq 10 \text{ mg/l}$ Nitrite: $\leq 0.6 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	c	Propagation of aquatic life.
Dissolved Oxygen Single Value	— —	Nov.-May: $\geq 6.0 \text{ mg/l}$ Jun.-Oct.: $\geq 5.0 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Annual Average Single Value	$\leq 60 \text{ mg/l}$	$\leq 80 \text{ mg/l}$	Propagation of aquatic life.
Turbidity Single Value	—	b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	$\leq 26 \text{ PCU}$	$\leq 75 \text{ PCU}$	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	$\leq 165 \text{ mg/l}$ $\leq 220 \text{ mg/l}$	$\leq 500 \text{ mg/l}$	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	$\leq 15 \text{ mg/l}$ $\leq 20 \text{ mg/l}$	$\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	$\leq 25 \text{ mg/l}$	$\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	—	$\leq 8$	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $\text{CaCO}_3$ )	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water and recreation not involving contact with the water.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. Increase in turbidity must not be more than 10 NTU above natural conditions.
- c. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 10, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)

## NAC 445A.161 Topaz Lake. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Topaz Lake

Control Point at Topaz Lake. The limits of this table apply at various points in Topaz Lake.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	$\Delta T = 0^{\circ}\text{C}^{\text{a}}$	Nov.-Apr. : $\leq 13^{\circ}\text{C}$ May-Jun. : $\leq 17^{\circ}\text{C}$ Jul.-Oct. : $\leq 23^{\circ}\text{C}$ $\Delta T \leq 2^{\circ}\text{C}^{\text{a}}$	Propagation of aquatic life and recreation involving contact with the water.
PH Single Value	—	Within range 6.5-9.0 SU $\Delta\text{pH} : \pm 0.5 \text{ SU Max.}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	— —	$\leq 0.05 \text{ mg/l}$ $\leq 0.10 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrogen $\leq 0.6 \text{ mg/l}$ $\leq 1.0 \text{ mg/l}$	Nitrate : $\leq 10 \text{ mg/l}$ Nitrite : $\leq 0.6 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Propagation of aquatic life.
Dissolved Oxygen Single Value	— —	Nov.-May: $\geq 6.0 \text{ mg/l}$ June-Oct. <sup>b</sup> : $\geq 5.0 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Annual Average Single Value	$\leq 0.6 \text{ mg/l}$ $\leq 9.0 \text{ mg/l}$	$\leq 25 \text{ mg/l}$	Propagation of aquatic life.
Turbidity Annual Average Single Value	$\leq 3.0 \text{ NTU}$ $\leq 5.0 \text{ NTU}$	c	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	$\leq 21 \text{ PCU}$	$\leq 75 \text{ PCU}$	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	$\leq 105 \text{ mg/l}$ $\leq 120 \text{ mg/l}$	$\leq 500 \text{ mg/l}$	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	$\leq 7 \text{ mg/l}$ $\leq 10 \text{ mg/l}$	— $\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	$\leq 25 \text{ mg/l}$	$\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	—	$\leq 8$	Irrigation, and municipal or domestic supply, or both.
Alkalinity (as $\text{CaCO}_3$ )	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 235$	Recreation involving contact with the water and recreation not involving contact with the water.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The dissolved oxygen standard from June to October applies only to the epilimnion.
- c. Increase in turbidity must not be more than 10 NTU above natural conditions.
- d. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 11, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)

**NAC 445A.162 West Walker River near Wellington. (NRS 445A.425, 445A.520)**

**STANDARDS OF WATER QUALITY**  
West Walker River

Control Point at the West Walker River near Wellington. The limits of this table apply from the West Walker River near Wellington to the West Walker River at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	$\Delta T = 0^{\circ}\text{C}^{\text{a}}$	Nov.-Apr. : $\leq 13^{\circ}\text{C}$ May-Jun. : $\leq 17^{\circ}\text{C}$ Jul.-Oct. : $\leq 23^{\circ}\text{C}$ $\Delta T \leq 2^{\circ}\text{C}^{\text{a}}$	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value	— —	Within range 6.5 - 9.0 SU $\Delta\text{pH} : \pm 0.5 \text{ SU Max.}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	$\leq 0.07 \text{ mg/l}$ $\leq 0.10 \text{ mg/l}$	$\leq 0.1 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrogen $\leq 0.6 \text{ mg/l}$ $\leq 1.0 \text{ mg/l}$	Nitrate : $\leq 10 \text{ mg/l}$ Nitrite : $\leq .06 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	c	Propagation of aquatic life.
Dissolved Oxygen Single Value	— —	Nov.-May : $\geq 6.0 \text{ mg/l}$ Jun.-Oct. : $\geq 5.0 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	—	$\leq 80 \text{ mg/l}$	Propagation of aquatic life.
Turbidity Single Value	—	b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	—	$\leq 75 \text{ PCU}$	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	$\leq 175 \text{ mg/l}$ $\leq 260 \text{ mg/l}$	$\leq 500 \text{ mg/l}$	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	$\leq 16 \text{ mg/l}$ $\leq 30 \text{ mg/l}$	— $\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	—	$\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	—	$\leq 8$	Irrigation, and municipal or domestic supply, or both.
Alkalinity (as $\text{CaCO}_3$ )	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 12, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)

**NAC 445A.163 West Walker River above confluence with East Walker River  
at Nordyke Road. (NRS 445A.425, 445A.520)**

**STANDARDS OF WATER QUALITY  
West Walker River**

Control Point at the West Walker River above the confluence with the East Walker River at Nordyke Road. The limits of this table apply to the West Walker River above its confluence with the East Walker River to the control point mentioned in NAC 445A.162 (near Wellington).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	$\Delta T = 0^{\circ}\text{C}^a$	Nov.-Apr. : $\leq 13^{\circ}\text{C}$ May-Jun. : $\leq 17^{\circ}\text{C}$ Jul.-Oct. : $\leq 23^{\circ}\text{C}$ $\Delta T \leq 2^{\circ}\text{C}^a$	Propagation of aquatic life and recreation involving contact with the water.
PH Single Value	—	Within range 6.5 - 9.0 SU $\Delta \text{pH} : \pm 0.5 \text{ SU Max.}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	$\leq 0.15 \text{ mg/l}$	$\leq 0.10 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrogen $\leq 1.0 \text{ mg/l}$ $\leq 1.2 \text{ mg/l}$	Nitrate : $\leq 10 \text{ mg/l}$ Nitrite : $\leq 0.6 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	c	Propagation of aquatic life.
Dissolved Oxygen Single Value	— —	Nov.-May : $\geq 6.0 \text{ mg/l}$ Jun.-Oct. : $\geq 5.0 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	—	$\leq 80 \text{ mg/l}$	Propagation of aquatic life.
Turbidity Single Value	—	b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	$\leq 46 \text{ PCU}$	$\leq 75 \text{ PCU}$	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	$\leq 330 \text{ mg/l}$ $\leq 425 \text{ mg/l}$	$\leq 500 \text{ mg/l}$	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	$\leq 22 \text{ mg/l}$ $\leq 28 \text{ mg/l}$	— $\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	$\leq 74 \text{ mg/l}$	$\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	—	$\leq 8$	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $\text{CaCO}_3$ )	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 13, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)

## NAC 445A.164 Sweetwater Creek. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Sweetwater Creek

Control Point at Sweetwater Creek. The limits of this table apply to Sweetwater Creek from its confluence with the East Walker River to the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	$\Delta T = 0^{\circ}\text{C}^a$	Nov.-Apr. : $\leq 13^{\circ}\text{C}$ May-Jun. : $\leq 17^{\circ}\text{C}$ Jul.-Oct. : $\leq 23^{\circ}\text{C}$ $\Delta T \leq 2^{\circ}\text{C}$	Propagation of aquatic life and recreation involving contact with the water.
PH Single Value	—	Within range 6.5 - 9.0 SU $\Delta\text{pH} : \pm 0.5 \text{ SU Max.}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrate $\leq 0.25 \text{ mg/l}$ $\leq 0.45 \text{ mg/l}$	Nitrate : $\leq 10 \text{ mg/l}$ Nitrite : $\leq 0.06 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	c	Propagation of aquatic life.
Dissolved Oxygen Single Value	— —	Nov.-May : $\geq 6.0 \text{ mg/l}$ Jun.-Oct. : $\geq 5.0 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	$\leq 45 \text{ mg/l}$	$\leq 80 \text{ mg/l}$	Propagation of aquatic life.
Turbidity Single Value	—	b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	—	$\leq 75 \text{ PCU}$	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	$\leq 220 \text{ mg/l}$ $\leq 300 \text{ mg/l}$	$\leq 500 \text{ mg/l}$	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	$\leq 5 \text{ mg/l}$ $\leq 7 \text{ mg/l}$	— $\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	—	$\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	—	$\leq 8$	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $\text{CaCO}_3$ )	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli – No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water and recreation not involving contact with the water.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. Increase in turbidity must not be more than 10 NTU above natural conditions.
- c. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 14, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)



## NAC 445A.165 East Walker River at the state line. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY East Walker River

Control Point at the East Walker River at the state line. The limits of this table apply only to the East Walker River at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	$\Delta T = 0^{\circ}\text{C}^{\text{a}}$	Nov.-Apr. : $\leq 13^{\circ}\text{C}$ May-Jun. : $\leq 17^{\circ}\text{C}$ Jul.-Oct. : $\leq 23^{\circ}\text{C}$ $\Delta T \leq 2^{\circ}\text{C}^{\text{b}}$	Propagation of aquatic life and recreation involving contact with the water.
PH Single Value	—	Within range 6.5 - 9.0 SU $\Delta \text{pH} : \pm 0.5 \text{ SU Max.}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average	—	$\leq 0.1 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrogen $\leq 0.8 \text{ mg/l}$ $\leq 1.4 \text{ mg/l}$	Nitrate : $\leq 10 \text{ mg/l}$ Nitrite : $\leq 0.06 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	c	Propagation of aquatic life.
Dissolved Oxygen Single Value	— —	Nov.-May : $\geq 6.0 \text{ mg/l}$ Jun.-Oct. : $\geq 5.0 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	$\leq 30 \text{ mg/l}$	$\leq 80 \text{ mg/l}$	Propagation of aquatic life.
Turbidity Single Value	—	b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	—	$\leq 75 \text{ PCU}$	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	$\leq 175 \text{ mg/l}$ $\leq 210 \text{ mg/l}$	$\leq 500 \text{ mg/l}$	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	$\leq 5 \text{ mg/l}$ $\leq 7 \text{ mg/l}$	— $\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	$\leq 26 \text{ mg/l}$	$\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	$\leq 2$	$\leq 8$	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $\text{CaCO}_3$ )	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli – No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water and recreation not involving contact with the water.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. Increase in turbidity must not be more than 10 NTU above natural conditions.
- c. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 16, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)

**NAC 445A.1655 East Walker River at Bridge B-1475. (NRS 445A.425, 445A.520)**

**STANDARDS OF WATER QUALITY  
East Walker River at Bridge B-1475**

Control Point at the East Walker River at Bridge B-1475. The limits of this table apply only from the East Walker River at Bridge B-1475 to the East Walker River at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	$\Delta T = 0^{\circ}\text{C}^a$	Nov.-Apr.: $\leq 13^{\circ}\text{C}$ May-Jun.: $\leq 17^{\circ}\text{C}$ Jul.-Oct.: $\leq 23^{\circ}\text{C}$ $\Delta T \leq 2^{\circ}\text{C}^a$	Propagation of aquatic life and recreation involving contact with the water.
PH Single Value	—	Within range 6.5 - 9.0 SU $\Delta\text{pH}: \pm 0.5 \text{ SU Max.}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average	—	$\leq 0.10 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrogen $\leq 0.9 \text{ mg/l}$ $\leq 1.7 \text{ mg/l}$	Nitrate: $\leq 10 \text{ mg/l}$ Nitrite: $\leq .06 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	c	Propagation of aquatic life.
Dissolved Oxygen Single Value	—	Nov.-May: $\geq 6.0 \text{ mg/l}$ June-Oct.: $\geq 5.0 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	—	$\leq 80 \text{ mg/l}$	Propagation of aquatic life.
Turbidity Single Value	—	b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	—	$\leq 75 \text{ PCU}$	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	$\leq 320 \text{ mg/l}$ $\leq 390 \text{ mg/l}$	$\leq 500 \text{ mg/l}$	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	$\leq 13 \text{ mg/l}$ $\leq 19 \text{ mg/l}$	$\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	—	$\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	—	$\leq 8$	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $\text{CaCO}_3$ )	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n by R128-01, eff. 1-18-2002; A by R099-02, 12-17-2002)

**NAC 445A.166 East Walker River South of Yerington. (NRS 445A.425, 445A.520)**

**STANDARDS OF WATER QUALITY**  
East Walker River

Control Point at the East Walker River South of Yerington above the confluence with the West Walker River (Nordyke Road). The limits of this table apply to the East Walker River South of Yerington above its confluence with the West Walker River to the East Walker River at Bridge B-1475.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	$\Delta T = 0^{\circ}\text{C}^a$	Nov.-Apr. : $\leq 13^{\circ}\text{C}$ May-Jun. : $\leq 17^{\circ}\text{C}$ Jul.-Oct. : $\leq 23^{\circ}\text{C}$ $\Delta T \leq 2^{\circ}\text{C}^a$	Propagation of aquatic life and recreation involving contact with the water.
PH Single Value	—	Within range 6.5 - 9.0 SU $\Delta \text{pH} : \pm 0.5 \text{ SU Max.}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	—	$\leq 0.16 \text{ mg/l}$ $\leq 0.39 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrogen $\leq 0.9 \text{ mg/l}$ $\leq 1.7 \text{ mg/l}$	Nitrate : $\leq 10 \text{ mg/l}$ Nitrite : $\leq 0.6 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	c	Propagation of aquatic life.
Dissolved Oxygen Single Value	— —	Nov.-May : $\geq 6.0 \text{ mg/l}$ Jun.-Oct. : $\geq 5.0 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	—	$\leq 80 \text{ mg/l}$	Propagation of aquatic life.
Turbidity Single Value	—	b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	—	$\leq 75 \text{ PCU}$	Municipal or domestic supply, or both, propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	$\leq 320 \text{ mg/l}$ $\leq 390 \text{ mg/l}$	$\leq 500 \text{ mg/l}$	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	$\leq 13 \text{ mg/l}$ $\leq 19 \text{ mg/l}$	— $\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	$\leq 44 \text{ mg/l}$	$\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	—	$\leq 8$	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $\text{CaCO}_3$ )	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 15, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)

**NAC 445A.167 Walker River at inlet to Weber Reservoir. (NRS 445A.425, 445A.520)**

**STANDARDS OF WATER QUALITY**  
Walker River

Control Point at the Walker River at the inlet to Weber Reservoir. The limits of this table apply to the Walker River from the inlet to Weber Reservoir to the confluence of the West Walker River and the East Walker River.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	$\Delta T = 0^{\circ}\text{C}^{\text{a}}$	Nov.-Mar.: $\leq 13^{\circ}\text{C}$ Apr.-Jun.: $\leq 23^{\circ}\text{C}^{\text{b}}$ Jul.-Oct.: $\leq 28^{\circ}\text{C}$ $\Delta T \leq 2^{\circ}\text{C}$	Propagation of aquatic life and recreation involving contact with the water.
PH Single Value	—	Within range 6.5 - 9.0 SU $\Delta \text{pH} : \pm 0.5 \text{ SU Max.}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	—	$\leq 0.26 \text{ mg/l}$ $\leq 0.40 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrogen $\leq 1.2 \text{ mg/l}$ $\leq 1.5 \text{ mg/l}$	Nitrate: $\leq 10 \text{ mg/l}$ Nitrite: $\leq 1^{\circ} \text{ mg/l}$	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Propagation of aquatic life.
Dissolved Oxygen Single Value	— —	Nov.-May: $\geq 6.0 \text{ mg/l}$ Jun.-Oct.: $\geq 5.0 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	—	$\leq 80 \text{ mg/l}$	Propagation of aquatic life.
Turbidity Single Value	—	d	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	—	$\leq 75 \text{ PCU}$	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	$\leq 400 \text{ mg/l}$ $\leq 450 \text{ mg/l}$	$\leq 500 \text{ mg/l}$	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	$\leq 30 \text{ mg/l}$ $\leq 35 \text{ mg/l}$	— $\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of wildlife irrigation and watering of livestock.
Sulfate Annual Average Single Value	$\leq 95 \text{ mg/l}$ $\leq 110 \text{ mg/l}$	$\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	$\leq 3$	$\leq 8$	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $\text{CaCO}_3$ )	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value		$\leq 126$ $\leq 410$	Recreation involving contact with the water and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
  - The temperature beneficial use standard is  $\leq 21^{\circ}\text{C}$  from February through June when Lahontan cutthroat are present in the reach from Walker Lake to Weber Reservoir.
  - The nitrite beneficial use standard is  $\leq 0.06 \text{ mg/l}$  from February through June when Lahontan cutthroat trout are present in the reach from Walker Lake to the Weber Reservoir.
  - Increase in turbidity must not be more than 10 NTU above natural conditions.
  - The ambient water quality criteria for ammonia are specified in NAC 445A.118.
- [Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 17, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)

## NAC 445A.168 Walker River at Schurz Bridge. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Walker River

Control Point at Schurz Bridge. The limits of this table apply from the inlet to Walker Lake to Weber Reservoir.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	$\Delta T = 0^{\circ}\text{C}^{\text{a}}$	Nov.-Mar. : $\leq 13^{\circ}\text{C}$ Apr.-Jun. : $\leq 23^{\circ}\text{C}^{\text{b}}$ Jul.-Oct. : $\leq 28^{\circ}\text{C}$ $\Delta T \leq 2^{\circ}\text{C}$	Propagation of aquatic life and recreation involving contact with the water.
PH Single Value	—	Within range 6.5 - 9.0 SU $\Delta\text{pH} : \pm 0.5 \text{ SU Max.}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	—	$\leq 0.17 \text{ mg/l}$ $\leq 0.23 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value Single Value	Total Nitrogen $\leq 1.2 \text{ mg/l}$ $\leq 1.5 \text{ mg/l}$	Nitrate : $\leq 10 \text{ mg/l}$ Nitrite : $\leq 1 \text{ mg/l}^{\text{c}}$ Ammonia : $\leq 0.06 \text{ mg/l}$ (un-ionized)	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Dissolved Oxygen Single Value	— —	Nov.-May : $\geq 6.0 \text{ mg/l}$ June-Oct. : $\geq 5.0 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	$\leq 60 \text{ mg/l}$	$\leq 80 \text{ mg/l}$	Propagation of aquatic life.
Turbidity Single Value	—	d	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	—	$\leq 75 \text{ PCU}$	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	$\leq 390 \text{ mg/l}$ $\leq 570 \text{ mg/l}$	$\leq 500 \text{ mg/l}$	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	$\leq 23 \text{ mg/l}$ $\leq 34 \text{ mg/l}$	— $\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	—	$\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	$\leq 3$	$\leq 8$	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $\text{CaCO}_3$ )	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
Escherichia coli Annual Geometric Mean Single Value	— —	126 MF/100 ml 235 MF/100 ml	Recreation involving contact with the water, recreation not involving contact with the water, municipal or domestic supply, or both, irrigation and watering of livestock.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The temperature beneficial use standard is  $\leq 21^{\circ}\text{C}$  from February through June when Lahontan cutthroat trout are present.
- c. The nitrite beneficial use standard is  $\leq 0.06 \text{ mg/l}$  from February through June when Lahontan cutthroat trout are present.
- d. Increase in turbidity must not be more than 10 NTU above natural conditions.

(Added to NAC by Environmental Comm'n, eff. 9-13-85; A by R128-01, 1-18-2002)

## NAC 445A.169 Desert Creek. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Desert Creek

Control Point at Desert Creek. The limits of this table apply to Desert Creek from its confluence with the West Walker River to the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	$\Delta T = 0^{\circ}\text{C}^{\text{a}}$	Nov.-Apr. : $\leq 13^{\circ}\text{C}$ May-Jun. : $\leq 17^{\circ}\text{C}$ Jul.-Oct. : $\leq 23^{\circ}\text{C}$ $\Delta T \leq 2^{\circ}\text{C}^{\text{a}}$	Propagation of aquatic life and recreation involving contact with the water.
PH Single Value	—	Within range 6.5 - 9.0 SU $\Delta\text{pH} : \pm 0.5 \text{ SU Max.}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	$\leq 0.13 \text{ mg/l}$	$\leq 0.1 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrate $\leq 0.20 \text{ mg/l}$ $\leq 0.27 \text{ mg/l}$	Nitrate : $\leq 10 \text{ mg/l}$ Nitrite : $\leq 0.06 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	c	Propagation of aquatic life.
Dissolved Oxygen Single Value	— —	Nov.-May : $\geq 6.0 \text{ mg/l}$ Jun.-Oct. : $\geq 5.0 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	—	$\leq 80 \text{ mg/l}$	Propagation of aquatic life.
Turbidity Single Value	—	b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	—	$\leq 75 \text{ PCU}$	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	$\leq 110 \text{ mg/l}$ $\leq 130 \text{ mg/l}$	$\leq 500 \text{ mg/l}$	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	$\leq 5 \text{ mg/l}$ $\leq 7 \text{ mg/l}$	— $\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	—	$\leq 250 \text{ mg/l}$	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	—	$\leq 8$	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $\text{CaCO}_3$ )	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value		$\leq 126$ $\leq 410$	Recreation involving contact with the water and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 18, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)

**NAC 445A.1693 Beneficial uses for Walker Lake. (NRS 445A.425, 445A.520)**

The standards of water quality for Walker Lake are prescribed in NAC 445A.1696. The beneficial uses for this area are:

1. Recreation involving contact with the water;
2. Recreation not involving contact with the water;
3. Propagation of wildlife; and
4. Propagation of aquatic life and, more specifically, the species of major concern are the tui chub, Tahoe sucker, and adult and juvenile Lahontan cutthroat trout.

(Added to NAC by Environmental Comm'n by R129-01, eff. 1-18-2002)

## NAC 445A.1696 Walker Lake. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Walker Lake

Control Point at Walker Lake. The limits of this table apply to Walker Lake.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.1693 (Most Stringent Use Listed First)
Temperature <sup>a</sup> Single Value	—	$\Delta T \leq 2^{\circ}\text{C}$	Propagation of aquatic life.
PH Single Value	—	Within range 6.5 - 9.7 SU	Propagation of aquatic life, recreation involving contact with the water and propagation of wildlife.
Dissolved Oxygen <sup>b</sup> Single Value	—	$\geq 5 \text{ mg/l}$	Propagation of aquatic life, recreation involving contact with the water, recreation not involving contact with the water and propagation of wildlife.
Suspended Solids Single Value	—	$\leq 25 \text{ mg/l}$	Propagation of aquatic life.
Nitrogen Species (as N) Single Value Single Value	Total Inorganic Nitrogen: $\leq 0.3 \text{ mg/l}$	Nitrate $\leq 90 \text{ mg/l}$ Nitrite $\leq 0.06 \text{ mg/l}$	Propagation of aquatic life and propagation of wildlife.
Total Ammonia (as N) – mg/l	—	c	Propagation of aquatic life.
Total Phosphorus (as P) Single Value	—	$\leq 0.82 \text{ mg/l}$	Propagation of aquatic life.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 235$	Recreation involving contact with the water and recreation not involving contact with the water.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- b. When lake is stratified, the dissolved oxygen applies only to the epilimnion.
- c. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n by R129-01, eff. 1-18-2002; A by R099-02, 12-17-2002)



**NAC 445A.170 Beneficial uses for part of Colorado River, Beaver Dam Wash and certain creeks.**

1. The standards of water quality for:
  - (a) The Colorado River below Davis Dam are prescribed in NAC 445A.192;
  - (b) Chiatovich Creek in Esmeralda County are prescribed in NAC 445A.171;
  - (c) Indian Creek are prescribed in NAC 445A.172;
  - (d) Leidy Creek are prescribed in NAC 445A.173;
  - (e) Beaver Dam Wash are prescribed in NAC 445A.178;
  - (f) Snake Creek are prescribed in NAC 445A.179; and
  - (g) The Colorado River below Hoover Dam are prescribed in NAC 445A.193.
2. The beneficial uses for these areas are:
  - (a) Irrigation;
  - (b) Watering of livestock;
  - (c) Recreation involving contact with the water;
  - (d) Recreation not involving contact with the water;
  - (e) Industrial supply;
  - (f) Municipal or domestic supply, or both;
  - (g) Propagation of wildlife; and
  - (h) Propagation of aquatic life.

(Added to NAC by Environmental Comm'n, 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.134355)

## NAC 445A.171 Chiatovich Creek. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Chiatovich Creek

Control Point above highway maintenance station. The limits of this table apply above the highway maintenance station.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum		Nov.-Apr. : ≤13°C May-Jun. : ≤17°C Jul.-Oct. : ≤23°C	Aquatic life <sup>b</sup> and recreation involving contact with the water.
ΔT <sup>a</sup>	ΔT = 0°C	ΔT ≤2°C	
pH Units	—	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : ≤.04 S.V. : ≤.06	A-Avg. : ≤0.1 —	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤.6 S.V. : ≤.8	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.06	Municipal or domestic supply, <sup>b</sup> aquatic life, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : ≥6.0 Jun.-Oct. : ≥5.0	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. : ≤25	Aquatic life. <sup>b</sup>
Turbidity - NTU	—	S.V. : ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg. : ≤50 S.V. : ≤60	A-Avg. : ≤500 —	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤2 S.V. : ≤3	— S.V. : ≤250	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	A-Avg. : ≤4 S.V. : ≤5	— S.V. : ≤250	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg. : ≤1	A-Avg. : ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M. : ≤100 S.V. : ≤200	≤200/400 <sup>d</sup>	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The most restrictive beneficial use.
- c. Increase in color must not be more than 10 PCU above natural conditions.
- d. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 19, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

## NAC 445A.172 Indian Creek. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Indian Creek

Control Point near center of Section 9, T.2 S., R.34 E. The limits of this table apply above the center of Section 9, T.2 S., R 34 E.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum		Nov.-Apr. : ≤13°C May-Jun. : ≤17°C Jul.-Oct. : ≤23°C	Aquatic life <sup>b</sup> and recreation involving contact with the water.
ΔT <sup>a</sup>	ΔT = 0°C	ΔT ≤2°C	
pH Units	—	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— S.V. : ≤0.13	A-Avg. : ≤0.1 —	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Nitrate  S.V. : ≤0.45	Nitrate S.V. : ≤10 Nitrite S.V. : ≤0.06	Municipal or domestic supply, <sup>b</sup> aquatic life, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : ≥6.0 Jun.-Oct. : ≥5.0	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. : ≤25	Aquatic life. <sup>b</sup>
Turbidity - NTU	—	S.V. : ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg. : ≤225 S.V. : ≤300	A-Avg. : ≤500 —	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤6 S.V. : ≤10	— S.V. : ≤250	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	—	S.V. : ≤250	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	—	A-Avg. : ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M. : ≤100 S.V. : ≤200	≤200/400 <sup>d</sup>	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The most restrictive beneficial use.
- c. Increase in color must not be more than 10 PCU above natural conditions.
- d. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 20, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

# **NAC 445A.173 Leidy Creek. (NRS 445A.425, 445A.520)**

## **STANDARDS OF WATER QUALITY Leidy Creek**

Control Point at hydroelectric plant. The limits of this table apply above the hydroelectric plant.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum		Nov.-Apr. : ≤13°C May-Jun. : ≤17°C Jul.-Oct. : ≤23°C	Aquatic life <sup>b</sup> and recreation involving contact with the water.
ΔT <sup>a</sup>	ΔT = 0°C	ΔT ≤2°C	
pH Units	—	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : ≤0.13 S.V. : ≤0.3	A-Avg. : ≤0.1 —	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Nitrate A-Avg. : ≤0.18 S.V. : ≤0.22	Nitrate S.V. : ≤10 Nitrite S.V. : ≤0.6	Municipal or domestic supply, <sup>b</sup> aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife <sup>b</sup> and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : ≥6.0 Jun.-Oct. : ≥5.0	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. : ≤25	Aquatic life. <sup>b</sup>
Turbidity - NTU	—	S.V. : ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg. : ≤135 S.V. : ≤150	A-Avg. : ≤500 —	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤3 S.V. : ≤5	— S.V. : ≤250	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	—	S.V. : ≤250	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	—	A-Avg. : ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M. : ≤100 S.V. : ≤200	≤200/400 <sup>d</sup>	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Increase in color must not be more than 10 PCU above natural conditions.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 21, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

**NAC 445A.174 Beneficial uses for Virgin River, Meadow Valley Wash and part of Muddy River.** The standards of water quality for the Virgin River, Muddy River below Glendale and Meadow Valley Wash are prescribed in NAC 445A.175, 445A.176, 445A.177, 445A.211 and 445A.212. The beneficial uses for these areas are:

1. Irrigation;
2. Watering of livestock;
3. Recreation not involving contact with the water;
4. Industrial supply;
5. Propagation of wildlife; and
6. Propagation of aquatic life.

(Added to NAC by Environmental Comm'n, 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.13439)

## NAC 445A.175 Virgin River at Mesquite. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Virgin River

Control Point at Mesquite. The limits of this table apply from Mesquite to the Arizona state line (near Littlefield, Arizona).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Jun. : $\leq 21^\circ\text{C}$ Jul.-Oct. : $\leq 32^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life. <sup>b</sup>
pH Units	—	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Propagation of wildlife, <sup>b</sup> aquatic life, <sup>b</sup> recreation not involving contact with the water, irrigation, watering of livestock and industrial supply.
Total Phosphates (as P) - mg/l	—	A-Avg. : $\leq 0.1$	Aquatic life <sup>b</sup> and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : $\leq 0.9$ S.V. : $\leq 1.6$	Nitrate S.V. : $\leq 90$ Nitrite S.V. : $\leq 5.0$	Aquatic life, <sup>b</sup> watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	—	S.V. : $\geq 5.0$	Aquatic life, <sup>b</sup> recreation not involving contact with the water, propagation of wildlife and watering of livestock.
Turbidity - NTU	—	e	Aquatic life. <sup>b</sup>
Color - PCU	—	d	Aquatic life. <sup>b</sup>
Total Dissolved Solids - mg/l	—	c	Irrigation <sup>b</sup> and watering of livestock.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M. : $\leq 300$ S.V. : $\leq 550$	A.G.M. : $\leq 1000$ S.V. : $\leq 2000$	Recreation not involving contact with the water, <sup>b</sup> irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean	—	$\leq 630$	Recreation not involving contact with the water.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The most restrictive beneficial use.
- c. The salinity standard for the Colorado River System is specified in NAC 445A.143.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. Increase in turbidity must not be more than 10 NTU above natural conditions.
- f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 22, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

**NAC 445A.176 Virgin River at the state line near Littlefield. (NRS 445A.425, 445A.520)**

STANDARDS OF WATER QUALITY  
Virgin River

Control Point at the state line (near Littlefield, Arizona). The limits of this table apply at the Arizona-Nevada state line (near Littlefield, Arizona).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Jun. : $\leq 21^\circ\text{C}$ Jul.-Oct. : $\leq 32^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life. <sup>b</sup>
pH - Standard Units	—	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Propagation of wildlife, <sup>b</sup> aquatic life, <sup>b</sup> recreation not involving contact with the water, irrigation, watering of livestock and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : $\leq 0.06$ S.V. : $\leq 0.1$	A-Avg. : $\leq 0.1$ —	Aquatic life <sup>b</sup> and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : $\leq 2.4$ S.V. : $\leq 3.2$	Nitrate S.V. : $\leq 90$ Nitrite S.V. : $\leq 5.0$	Aquatic life, <sup>b</sup> watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	—	S.V. : $\geq 5.0$	Aquatic life, <sup>b</sup> recreation not involving contact with the water, propagation of wildlife and watering of livestock.
Turbidity - NTU	—	e	Aquatic life. <sup>b</sup>
Color - PCU	—	d	Aquatic life. <sup>b</sup>
Total Dissolved Solids - mg/l	—	c	Irrigation <sup>b</sup> and watering of livestock.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M. : $\leq 450$ S.V. : $\leq 1800$	A.G.M. : $\leq 1000$ S.V. : $\leq 2000$	Recreation not involving contact with the water, <sup>b</sup> irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean	—	$\leq 630$	Recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- The salinity standard for the Colorado River System is specified in NAC 445A.143.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 22.1, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

## NAC 445A.177 Virgin River at Riverside. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Virgin River

Control Point at Riverside. The limits of this table apply from the river mouth at Lake Mead to Mesquite.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Jun. : $\leq 21^\circ\text{C}$ Jul.-Oct. : $\leq 32^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life. <sup>b</sup>
pH Units	—	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Propagation of wildlife, <sup>b</sup> aquatic life, <sup>b</sup> recreation not involving contact with the water, irrigation, watering of livestock and industrial supply.
Total Phosphates (as P) - mg/l	—	A-Avg. : $\leq 0.1$	Aquatic life <sup>b</sup> and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : $\leq 2.9$ S.V. : $\leq 6.1$	Nitrate S.V. : $\leq 90$ Nitrite S.V. : $\leq 5.0$	Aquatic life <sup>b</sup> watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	—	S.V. : $\geq 5.0$	Aquatic life, <sup>b</sup> recreation not involving contact with the water, propagation of wildlife and watering of livestock.
Turbidity - NTU	—	e	Aquatic life. <sup>b</sup>
Color - PCU	—	d	Aquatic life. <sup>b</sup>
Total Dissolved Solids - mg/l	—	c	Irrigation <sup>b</sup> and watering of livestock.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M. : $\leq 625$ S.V. : $\leq 1250$	A.G.M. : $\leq 1000$ S.V. : $\leq 2000$	Recreation not involving contact with the water, <sup>b</sup> irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean	—	$\leq 630$	Recreation not involving contact with the water. <sup>b</sup>

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The most restrictive beneficial use.
- c. The salinity standard for the Colorado River System is specified in NAC 445A.143.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. Increase in turbidity must not be more than 10 NTU above natural conditions.
- f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 22.2, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)



# **NAC 445A.178 Beaver Dam Wash. (NRS 445A.425, 445A.520)**

## **STANDARDS OF WATER QUALITY** Beaver Dam Wash

Control Point above Schroeder Reservoir. The limits of this table apply above Schroeder Reservoir.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Apr.: $\leq 13^\circ\text{C}$ May-Jun.: $\leq 17^\circ\text{C}$ Jul.-Oct.: $\leq 23^\circ\text{C}$  $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	—	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \pm 0.5$ Max.	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: $\leq 0.1$ S.V.: $\leq 0.13$	A-Avg.: $\leq 0.05$ —	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Nitrate S.V.: $\leq 22$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.6$	Municipal or domestic supply, <sup>b</sup> aquatic life, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V.: $\leq 25$	Aquatic life. <sup>b</sup>
Turbidity - NTU	—	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	e	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	—	c	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	—	$\leq 200/400^d$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- The salinity standard for the Colorado River System is specified in NAC 445A.143.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 23, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

# **NAC 445A.179 Snake Creek. (NRS 445A.425, 445A.520)**

## **STANDARDS OF WATER QUALITY Snake Creek**

Control Point above fish hatchery. The limits of this table apply above the fish hatchery.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum		Nov.-Apr. : ≤13°C May-Jun. : ≤17°C Jul.-Oct. : ≤23°C	Aquatic life <sup>b</sup> and recreation involving contact with the water.
ΔT <sup>a</sup>	ΔT = 0°C	ΔT ≤2°C	
pH Units	—	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : ≤.05 S.V. : ≤.08	A-Avg. : ≤0.1	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Nitrate A-Avg. : ≤.22 S.V. : ≤.44	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.06	Municipal or domestic supply, <sup>b</sup> aquatic life, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	c	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : ≥6.0 Jun.-Oct. : ≥5.0	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. : ≤25	Aquatic life. <sup>b</sup>
Turbidity - NTU	—	S.V. : ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg. : ≤100 S.V. : ≤125	A-Avg. : ≤500	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤10 S.V. : ≤20	— S.V. : ≤250	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	—	S.V. : ≤250	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	—	A-Avg. : ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M. : ≤100 S.V. : ≤200	≤200/400 <sup>d</sup>	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Increase in color must not be more than 10 PCU above natural conditions.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 24, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

**NAC 445A.180 Smoke Creek.**

**WATER QUALITY STANDARDS**  
**Smoke Creek**

Control Point: Approximately 30 miles east of Susanville, California.

Temperature °C		
Single Value, Summer .....	not more than	25.0
Single Value, Winter.....	not more than	14.0
Maximum allowable temperature increase above natural receiving water temperature: .....		3°C
pH Units		
Annual Median.....	within range	7.0-8.0
Single Value.....	within range	6.5-8.5
Dissolved Oxygen - mg/l		
Average (June through September).....	not less than	8.0
Single Value.....	not less than	7.5
BOD - mg/l		
Single Value.....	not more than	5.0
Chlorides - mg/l		
Single Value.....	not more than	10.0
Phosphates (PO <sub>4</sub> ) - mg/l		
Annual Average .....	not more than	0.5
Single Value.....	not more than	0.7
Nitrates (NO <sub>3</sub> ) - mg/l		
Single Value.....	not more than	5.0
Total Dissolved Solids - mg/l		
Annual Average .....	not more than	225.0
Single Value.....	not more than	275.0
Color - Color must not exceed that characteristic of natural conditions by more than 10 units on the Platinum-Cobalt Scale.		
Turbidity - Turbidity must not exceed that characteristic of natural conditions by more than 10 Jackson Units.		

Fecal Coliform - The more stringent of the following apply:

The fecal coliform concentration must not exceed a geometric mean of 1000 per 100 milliliters nor may more than 20 percent of total samples exceed 2400 per 100 milliliters.

The annual geometric mean of fecal coliform concentration must not exceed that characteristic of natural conditions by more than 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed that characteristic of natural conditions by more than 400 per 100 milliliters.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 36, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(Substituted in revision for NAC 445.1346)

**NAC 445A.181 Bronco Creek.**

**WATER QUALITY STANDARDS  
Bronco Creek**

Control Point: At Hirschdale Road.

**Temperature °C**

Average (June through September).....	not more than	20.0
Single Value, Summer .....	not more than	25.0
Single Value, Winter.....	not more than	13.0

Maximum allowable temperature increase above natural receiving water temperature: ..... none

**pH Units**

Annual Median.....	within range	7.0-8.5
Single Value.....	within range	6.5-8.5

**Dissolved Oxygen - mg/l**

Average (June through September).....	not less than	7.0
Single Value.....	not less than	6.0

**Chlorides - mg/l**

Single Value.....	not more than	15.0
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**Phosphates (PO<sub>4</sub>) - mg/l**

Annual Average .....	not more than	0.3
Single Value.....	not more than	0.4

**Nitrates (NO<sub>3</sub>) - mg/l**

Single Value.....	not more than	2.0
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**Total Dissolved Solids - mg/l**

Annual Average .....	not more than	225.0
Single Value.....	not more than	300.0

Color - Color must not exceed that characteristic of natural conditions by more than 10 units on the Platinum-Cobalt Scale.

Turbidity - Turbidity must not exceed that characteristic of natural conditions by more than 10 Jackson Units.

Fecal Coliform - The more stringent of the following apply:

The fecal coliform concentration must not exceed a geometric mean of 1000 per 100 milliliters nor may more than 20 percent of total samples exceed 2400 per 100 milliliters.

The annual geometric mean of fecal coliform concentration must not exceed that characteristic of natural conditions by more than 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed that characteristic of natural conditions by more than 400 per 100 milliliters.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 37, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(Substituted in revision for NAC 445.13461)

**NAC 445A.182 Gray Creek.**

**WATER QUALITY STANDARDS**  
**Gray Creek**

Control Point: At Hirschdale Road.

Temperature °C

Average (June through September).....	not more than	20.0
Single Value, Summer .....	not more than	25.0
Single Value, Winter.....	not more than	13.0

Maximum allowable temperature increase above natural receiving water temperature: ..... none

pH Units

Annual Median.....	within range	7.0-8.5
Single Value.....	within range	6.5-8.5

Dissolved Oxygen - mg/l

Average (June through September).....	not less than	8.0
Single Value.....	not less than	7.0

Chlorides - mg/l

Single Value.....	not more than	10.0
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Phosphates (PO<sub>4</sub>) - mg/l

Annual Average .....	not more than	0.3
Single Value.....	not more than	0.4

Nitrates (NO<sub>3</sub>) - mg/l

Single Value.....	not more than	3.0
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Total Dissolved Solids - mg/l

Annual Average .....	not more than	125.0
Single Value.....	not more than	165.0

Color - Color must not exceed that characteristic of natural conditions by more than 10 units on the Platinum-Cobalt Scale.

Turbidity - Turbidity must not exceed that characteristic of natural conditions by more than 10 Jackson Units.

Fecal Coliform - The more stringent of the following apply:

The fecal coliform concentration must not exceed a geometric mean of 1000 per 100 milliliters nor may more than 20 percent of total samples exceed 2400 per 100 milliliters.

The annual geometric mean of fecal coliform concentration must not exceed that characteristic of natural conditions by more than 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed that characteristic of natural conditions by more than 400 per 100 milliliters.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 38, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(Substituted in revision for NAC 445.13462)

**NAC 445A.183 Beneficial uses for Truckee River from Pyramid Lake to the state line.** The water quality standards for the Truckee River from Pyramid Lake to the state line are prescribed in NAC 445A.184 to 445A.190, inclusive. The beneficial uses for this area are:

1. Irrigation;
  2. Watering of livestock;
  3. Recreation involving contact with the water;
  4. Recreation not involving contact with water;
  5. Industrial supply;
  6. Municipal or domestic supply, or both;
  7. Propagation of wildlife; and
  8. Propagation of aquatic life. The aquatic life of major concern are:
    - (a) At the state line, all life stages of mountain whitefish, rainbow trout and brown trout.
    - (b) From the state line to Idlewild, all life stages of mountain whitefish, rainbow trout and brown trout.
    - (c) From Idlewild to East McCarran, all life stages of mountain whitefish, rainbow trout and brown trout.
    - (d) From East McCarran to Lockwood, juvenile and adult rainbow trout and juvenile and adult brown trout.
    - (e) From Lockwood to Derby, juvenile and adult rainbow trout and juvenile and adult brown trout. However, the species which are sensitive to temperature are expected to seek a cooler microhabitat during July and August.
    - (f) From Derby to Wadsworth, early spawning Lahontan cutthroat trout and their incubation, larvae, juveniles and migration, from May through June, depending on hydrological conditions.
    - (g) From Wadsworth to Pyramid Lake, early spawning Lahontan cutthroat trout and cui-ui, and their incubation, larvae, juveniles and migration, from May through June, depending on hydrological conditions.
- (Added to NAC by Environmental Comm'n, eff. 10-25-84; A 9-25-90; 10-29-93)—  
(Substituted in revision for NAC 445.134625)

# **NAC 445A.184 Truckee River at the state line. (NRS 445A.425, 445A.520)**

## STANDARDS OF WATER QUALITY Truckee River

Control Point at the state line. The limits of this table apply only at the California-Nevada state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Mar. : $\leq 7^\circ\text{C}$ Apr.-May : $\leq 13^\circ\text{C}$ June : $\leq 17^\circ\text{C}$ July : $\leq 22^\circ\text{C}$ Aug. : $\leq 21^\circ\text{C}$ Sep.-Oct. : $\leq 23^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	7.0 - 8.3	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : Nov.-Mar. : $\geq 6.0$ Apr.-Oct. : $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : $\leq 7.0$ S.V. : $\leq 10.0$	S.V. : $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Total Phosphates (as P) - mg/l	A-Avg. : $\leq 0.03$	A-Avg. : $\leq 0.10$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Ortho Phosphate (P) - mg/l	S.V. : $\leq 0.01$	S.V. : $\leq 0.05$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : $\leq 0.3$ S.V. : $\leq 0.43$	Nitrate S.V. : $\leq 2.0$ Nitrite S.V. : $\leq 0.4$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg. : $\leq 70.0$ S.V. : $\leq 85.0$	A-Avg. : $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Turbidity - NTU	A-Avg. : $\leq 5.0$ S.V. : $\leq 9.0$	S.V. : $\leq 10.00$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V. : $\leq 75$	Municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M. : $\leq 30.0$ S.V. : $\leq 150.0$	$\leq 200/400^c$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Suspended Solids - mg/l	A-Avg. : $\leq 15.0$	S.V. : $\leq 25$	Aquatic life. <sup>b</sup>
Sulfate - mg/l	A-Avg. : $\leq 7.0$ S.V. : $\leq 8.0$	S.V. : $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg. : $\leq 0.5$ S.V. : $\leq 0.6$	A-Avg. : $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
BOD - mg/l	—	A-Avg. : $\leq 2.5$ S.V. : $\leq 3.0$	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 39, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93; R099-02, 12-17-2002)

# **NAC 445A.185 Truckee River at Idlewild. (NRS 445A.425, 445A.520)**

## **STANDARDS OF WATER QUALITY Truckee River**

Control Point at Idlewild. The limits of this table apply from the control point at Idlewild to the state line control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum		Nov.-Mar. : ≤7°C Apr.-May : ≤13°C June : ≤17°C July : ≤21°C Aug. : ≤22°C Sep.-Oct. : ≤23°C	Aquatic life <sup>b</sup> and recreation involving contact with the water.
ΔT <sup>a</sup>	ΔT = 0°C	ΔT ≤2°C	
pH Units	7.2 - 8.3	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : Nov.-Mar. : ≥6.0: Apr.-Oct. : ≥5.0	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : ≤7.0 S.V. : ≤10.0	S.V. : ≤250	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Total Phosphates (as P) - mg/l	A-Avg. : ≤0.05	A-Avg. : ≤0.10	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Ortho Phosphate (P) - mg/l	S.V. : ≤0.02	S.V. : ≤0.05	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤0.3 S.V. : ≤0.43	Nitrate S.V. : ≤2.0 Nitrite S.V. : ≤0.4	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg. : ≤80.0 S.V. : ≤95.0	A-Avg. : ≤500	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Turbidity - NTU	A-Avg. : ≤6.0 S.V. : ≤9.0	S.V. : ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M. : ≤50.0 S.V. : ≤200.0	≤200/400 <sup>c</sup>	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Suspended Solids - mg/l	A-Avg. : ≤15.0	S.V. : ≤25	Aquatic life. <sup>b</sup>
Sulfate - mg/l	A-Avg. : ≤7.0 S.V. : ≤8.0	S.V. : ≤250	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg. : ≤0.5 S.V. : ≤0.6	A-Avg. : ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
BOD-mg/l	—	A-Avg. : ≤2.5 S.V. : ≤3.0	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n. Water Pollution Control Reg. part 8 4.2.5, Table 40, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93; R099-02, 12-17-2002)



# **NAC 445A.186 Truckee River at East McCarran. (NRS 445A.425, 445A.520)**

## **STANDARDS OF WATER QUALITY** Truckee River

Control Point at East McCarran Boulevard Bridge. The limits of this table apply from the East McCarran control point to the Idlewild control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Mar.: $\leq 7^\circ\text{C}$ Apr.-May: $\leq 13^\circ\text{C}$ June: $\leq 17^\circ\text{C}$ July: $\leq 21^\circ\text{C}$ Aug.: $\leq 22^\circ\text{C}$ Sep.-Oct.: $\leq 23^\circ\text{C}$  $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	7.0 - 8.5	S.V.: 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V.: Nov.-Mar.: $\geq 6.0$ Apr.-Oct.: $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg.: $\leq 7.0$ S.V.: $\leq 10.0$	S.V.: $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Total Phosphates (as P) - mg/l	A-Avg.: $\leq 0.05$	A-Avg.: $\leq 0.10$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Ortho Phosphate (P) - mg/l	S.V.: $\leq 0.02$	S.V.: $\leq 0.05$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 0.3$ S.V.: $\leq 0.43$	Nitrate S.V.: $\leq 2.0$ Nitrite S.V.: $\leq 0.4$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg.: $\leq 90.0$ S.V.: $\leq 120.0$	A-Avg.: $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Turbidity - NTU	A-Avg.: $\leq 6.0$	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: $\leq 75$	Municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M.: $\leq 75.0$ S.V.: $\leq 350.0$	$\leq 200/400^c$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Suspended Solids - mg/l	A-Avg.: $\leq 15.0$	S.V.: $\leq 25$	Aquatic life. <sup>b</sup>
Sulfate - mg/l	A-Avg.: $\leq 7.0$ S.V.: $\leq 8.0$	S.V.: $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg.: $\leq 0.5$ S.V.: $\leq 0.6$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
BOD - mg/l	—	A-Avg.: $\leq 3.0$ S.V.: $\leq 5.0$	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part 8, 4.2.5, Table 41, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93; R099-02, 12-17-2002)

## NAC 445A.187 Truckee River at Lockwood Bridge. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Truckee River

Control Point at Lockwood Bridge. The limits of this table apply from the control point at Lockwood to the East McCarran control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Mar. : $\leq 13^\circ\text{C}$ Apr. : $\leq 21^\circ\text{C}^e$ May : $\leq 22^\circ\text{C}^{e,f}$ June-Oct. : $\leq 23^\circ\text{C}^{e,f}$  $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	7.1 - 8.5	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : Nov.-Mar. : $\geq 6.0$ Apr.-Oct. : $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : $\leq 26.0$ S.V. : $\leq 30.0$	S.V. : $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Total Phosphates (as P) - mg/l	—	A-Avg. : $\leq 0.05$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	—	TN A-Avg. : $\leq 0.75$ TN S.V. : $\leq 1.2$ Nitrate S.V. : $\leq 2.0$ Nitrite S.V. : $\leq 0.4$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	g	Aquatic life. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg. : $\leq 210.0$ S.V. : $\leq 260.0$	A-Avg. : $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Turbidity - NTU	—	S.V. : $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V. : $\leq 75$	Municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M. : $\leq 90.0$ S.V. : $\leq 300.0$	$\leq 200/400^c$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Suspended Solids - mg/l	A-Avg. : $\leq 25.0$	S.V. : $\leq 50$	Aquatic life. <sup>b</sup>
Sulfate - mg/l	A-Avg. : $\leq 39.0$ S.V. : $\leq 46.0$	S.V. : $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg. : $\leq 1.5$ S.V. : $\leq 2.0$	A-Avg. : $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard. The  $\Delta T$  of  $\leq 2^\circ\text{C}$  is only for the Reno and Sparks Joint Wastewater Treatment Plant.
- b. The most restrictive beneficial use.
- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. When flows are adequate to induce spawning runs of cui-ui and Lahontan cutthroat trout, the standard is  $14^\circ\text{C}$  from April through June.
- f. The desired temperature for the protection of juvenile Lahontan cutthroat trout is  $21^\circ\text{C}$ , even though that temperature is not attainable at all times.
- g. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 42, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93; R099-02, 12-17-2002)

## NAC 445A.188 Truckee River at Derby Dam. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Truckee River

Control Point at Derby Dam. The limits of this table apply from Derby Dam to the Lockwood Bridge control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Mar. : $\leq 13^\circ\text{C}$ Apr. : $\leq 21^\circ\text{C}^e$ May : $\leq 22^\circ\text{C}^{e,f}$ June-Oct. : $\leq 23^\circ\text{C}^{e,f}$  $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	7.0 - 8.6	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : Nov.-Mar. : $\geq 6.0$ Apr.-Oct. : $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : $\leq 21.0$ S.V. : $\leq 30.0$	S.V. : $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Total Phosphates (as P) - mg/l	—	A-Avg. : $\leq 0.05$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	—	TN A-Avg. : $\leq 0.75$ TN S.V. : $\leq 1.2$ Nitrate S.V. : $\leq 2.0$ Nitrite S.V. : $\leq 0.4$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	g	Aquatic life, <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg. : $\leq 215.0$ S.V. : $\leq 265.0$	A-Avg. : $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Turbidity - NTU	A-Avg. : $\leq 8.0$	S.V. : $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V. : $\leq 75$	Municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M. : $\leq 80.0$ S.V. : $\leq 250$	$\leq 200/400^c$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Suspended Solids - mg/l	A-Avg. : $\leq 24.0$ S.V. : $\leq 40.0$	S.V. : $\leq 50$	Aquatic life. <sup>b</sup>
Sulfate - mg/l	A-Avg. : $\leq 39.0$ S.V. : $\leq 46.0$	S.V. : $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg. : $\leq 1.5$ S.V. : $\leq 2.0$	A-Avg. : $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The most restrictive beneficial use.
- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. When flows are adequate to induce spawning runs of cui-ui and Lahontan cutthroat trout, the standard is  $14^\circ\text{C}$  from April through June.
- f. The desired temperature for the protection of juvenile Lahontan cutthroat trout is  $21^\circ\text{C}$ , even though that temperature is not attainable at all times.
- g. The ambient water quality criteria for ammonia are specified in NAC 445A.118.  
[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 42.1, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93; R099-02, 12-17-2002)

## NAC 445A.189 Truckee River at Wadsworth Gage. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Truckee River

Control Point at Wadsworth Gage. The limits of this table apply from the Wadsworth Gage control point to Derby Dam.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Mar. : $\leq 13^\circ\text{C}^e$ Apr.-June : $\leq 14^\circ\text{C}^e$ July-Oct. : $\leq 25^\circ\text{C}^f$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	7.1 - 8.6	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : Nov.-June : $\geq 6.0$ July-Oct. : $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : $\leq 20.0$ S.V. : $\leq 28.0$	S.V. : $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Total Phosphates (as P) - mg/l	—	A-Avg. : $\leq 0.05$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	—	TN A-Avg. : $\leq 0.75$ TN S.V. : $\leq 1.2$ Nitrate S.V. : $\leq 2.0$ Nitrite S.V. : $\leq 0.04$	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	g	Aquatic life. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg. : $\leq 245.0$ S.V. : $\leq 310.0$	A-Avg. : $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Turbidity - NTU	—	S.V. : $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V. : $\leq 75$	Municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M. : $\leq 50$ S.V. : $\leq 250$	$\leq 200/400^c$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Suspended Solids - mg/l	A-Avg. : $\leq 25.0$	S.V. : $\leq 50$	Aquatic life. <sup>b</sup>
Sulfate - mg/l	A-Avg. : $\leq 39.0$ S.V. : $\leq 46.0$	S.V. : $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg. : $\leq 1.5$ S.V. : $\leq 2.0$	A-Avg. : $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- When flows are adequate to induce spawning runs of cui-ui and Lahontan cutthroat trout, the standard is  $13^\circ\text{C}$  from November through March and  $14^\circ\text{C}$  from April through June.
- The desired temperature for the protection of juvenile Lahontan cutthroat trout is  $21^\circ\text{C}$ , even though that temperature is not attainable at all times.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 43, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93; R099-02, 12-17-2002)

## NAC 445A.190 Truckee River at Pyramid Lake.

### STANDARDS OF WATER QUALITY Truckee River

Control Point at Pyramid Lake. The limits of this table apply from the mouth of the Truckee River at Pyramid Lake to the Wadsworth Gage control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Mar.: $\leq 13^\circ\text{C}^e$ Apr.-June: $\leq 14^\circ\text{C}^e$ July-Oct.: $\leq 25^\circ\text{C}^f$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.3 - 9.0	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \pm 0.5$ Max.	Water contact recreation, <sup>b</sup> wildlife propagation, <sup>b</sup> aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V.: Nov.-June: $\geq 6.0$ July-Oct.: $\geq 5.0$	Aquatic life, <sup>b</sup> water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: $\leq 105.0$ S.V.: $\leq 130.0$	S.V.: $\leq 250$	Municipal or domestic supply, <sup>b</sup> wildlife propagation, irrigation and stock watering.
Total Phosphates (as P) - mg/l	—	A-Avg.: $\leq 0.05$	Aquatic life, <sup>b</sup> water contact recreation, <sup>b</sup> municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	—	TN A-Avg.: $\leq 0.75$ TN S.V.: $\leq 1.2$ Nitrate S.V.: $\leq 2.0$ Nitrite S.V.: $\leq 0.4$ Ammonia S.V.: $\leq 0.2$ (un-ionized)	Aquatic life, <sup>b</sup> water contact recreation, <sup>b</sup> municipal or domestic supply and noncontact recreation.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 415.0$	A-Avg.: $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and stock watering.
Turbidity - NTU	—	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: $\leq 75$	Municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: $\leq 40$ S.V.: $\leq 250$	$\leq 200/400^c$	Water contact recreation, <sup>b</sup> noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
Suspended Solids - mg/l	A-Avg.: $\leq 25.0$	S.V.: $\leq 50$	Aquatic life. <sup>b</sup>
Sulfate - mg/l	A-Avg.: $\leq 85.0$ S.V.: $\leq 106.0$	S.V.: $\leq 250$	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A-Avg.: $\leq 2.4$ S.V.: $\leq 2.9$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- When flows are adequate to induce spawning runs of cui-ui and Lahontan cutthroat trout, the standard is  $13^\circ\text{C}$  from November through March and  $14^\circ\text{C}$  from April through June.
- The desired temperature for the protection of juvenile Lahontan cutthroat trout is  $21^\circ\text{C}$ , even though that temperature is not attainable at all times.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 43.1, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93)—(Substituted in revision for NAC 445.13471)

**NAC 445A.1905 Beneficial uses for Lake Tahoe.** The standards of water quality for Lake Tahoe are prescribed in NAC 445A.191. The beneficial uses for this area are:

1. Irrigation;
  2. Watering of livestock;
  3. Recreation not involving contact with the water;
  4. Recreation involving contact with the water;
  5. Industrial supply;
  6. Propagation of wildlife;
  7. Propagation of aquatic life, including a coldwater fishery;
  8. Municipal or domestic supply, or both; and
  9. Water of extraordinary ecological or aesthetic value.
- (Added to NAC by Environmental Comm'n, eff. 11-9-95)

**NAC 445A.191 Lake Tahoe.**

STANDARDS OF WATER QUALITY  
Lake Tahoe

Control Point: Existing sampling points.

pH Units

Single Value .....within range 7.0-8.4

Dissolved Oxygen - Percent of Saturation

Single Value .....not less than 90.0

Chlorides - mg/l

Annual Average..... not more than 3.0

Single Value ..... not more than 5.0

Soluble Phosphorus - µg/l

Annual Average..... not more than 7.0

Total Nitrogen (as N) - mg/l

Annual Average..... not more than 0.25

Single Value ..... not more than 0.32

Total Soluble Inorganic Nitrogen - µg/l

Annual Average..... not more than 25.0

Nitrite (as N) - mg/l

Single Value ..... not more than 0.06

Ammonia-unionized - mg/l

Single Value ..... not more than 0.003

Escherichia Coli - No./100 ml

Single Value ..... not more than 126.0

Coliform Organisms - MPN/100 ml

A density not greater than the values shown in the following table:

	Median	Maximum
Undeveloped Lake Front Areas		

10 yards offshore.....	5.0	32.0
100 yards offshore.....	3.0	15.0
Developed Lake Front Areas		
10 yards offshore.....	240.0	700.0
100 yards offshore.....	15.0	64.0
Directly Influenced by Streams		
10 yards offshore.....	240.0	700.0
100 yards offshore.....	32.0	240.0
Temperature °C		
Single Value (October 1 through May 31).....	not more than	10.0
Single Value (June 1 through September 30).....	not more than	20.0
Permissible temperature increase above natural receiving water temperature .....		none
Algal Growth Potential - The mean annual algal growth potential at any point in the lake must not be greater than twice the mean annual algal potential at a limnetic reference station and using analytical methods determined jointly with the Environmental Protection Agency, Region IX.		
Plankton Count - number per ml		
Average (June through September).....	not to exceed	100.0
Single Value .....	not to exceed	500.0
Specific Electrical Conductance micromhos per cm at 20°		
Annual Average.....	not to exceed	95.0
Single Value .....	not to exceed	105.0
Total Dissolved Solids - mg/l		
Annual Average.....	not more than	60.0
Single Value .....	not more than	70.0
Sulfate - mg/l		
Single Value .....	not more than	2.0
Sodium - SAR		
Annual Average.....	not more than	8.0
Clarity - The vertical extinction coefficient must be less than 0.08 per meter when measured at any depth below the first meter. Turbidity must not exceed 3 NTU at any point of the lake too shallow to determine a reliable extinction coefficient.		
Turbidity - To minimize turbidity levels in Lake Tahoe and tributary streams and control erosion:		
1. The discharge of solid or liquid waste materials including soil, silt, clay, sand and other organic and earthen materials to Lake Tahoe or any tributary thereto is prohibited.		
2. The discharge of solid or liquid waste materials including soil, silt, clay, sand and other organic and earthen materials to lands below the high water rim of Lake Tahoe or along any tributary to Lake Tahoe in a manner which will cause the discharge of the waste materials to Lake Tahoe or any tributary thereto is prohibited.		
3. The placement or man-made disturbance of material below the high water rim of Lake Tahoe or along any tributaries to Lake Tahoe in a manner which will cause the		

discharge of solid or liquid waste materials including soil, silt, clay, sand and other organic and earthen materials to Lake Tahoe or any tributary thereto is prohibited.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 44, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 11-9-95)

**NAC 445A.1912 Beneficial uses for tributaries to Lake Tahoe.** The standards of water quality for tributaries to Lake Tahoe are prescribed in NAC 445A.1915 and 445A.1917. The beneficial uses for those tributaries are:

1. Irrigation;
2. Watering of livestock;
3. Recreation not involving contact with the water;
4. Recreation involving contact with the water;
5. Industrial supply;
6. Propagation of wildlife;
7. Propagation of aquatic life, including a coldwater fishery;
8. Municipal or domestic supply, or both; and
9. Enhancement of water quality.

(Added to NAC by Environmental Comm'n, eff. 11-9-95)



**NAC 445A.1915 Tributaries to Lake Tahoe.**

**STANDARDS OF WATER QUALITY  
Lake Tahoe Tributaries**

The following standards apply to all tributaries to Lake Tahoe located in Nevada:

pH Units		
Single Value .....	within range	6.5-9.0
Dissolved Oxygen - mg/l		
Single Value .....	not less than	6.0
Total Phosphates (as P) - mg/l		
Annual Average.....	not more than	0.05
Nitrate (as N) - mg/l		
Single Value .....	not more than	10.0
Nitrite (as N) - mg/l		
Single Value .....	not more than	0.06
Ammonia-unionized - mg/l		
Single Value .....	not more than	0.004
Total Suspended Solids - mg/l		
Single Value .....	not more than	25.0
Turbidity - NTU		
Single Value .....	not more than	10.0
Color - PCU		
Single Value .....	not more than	75.0
Total Dissolved Solids - mg/l		
Annual Average.....	not more than	500.0
Chloride - mg/l		
Single Value .....	not more than	250.0
Sulfate - mg/l		
Single Value .....	not more than	250.0
Sodium - SAR		
Annual Average.....	not more than	8.0
Escherichia Coli - No./100ml		
Single Value .....	not more than	126.0
Temperature °C		
Single Value (October 1 through May 31) .....	not more than	10.0
Single Value (June 1 through September 30) .....	not more than	20.0
(Added to NAC by Environmental Comm'n, eff. 11-9-95)		

**NAC 445A.1917 Standards to maintain higher quality waters within tributaries to Lake Tahoe.** The water quality of any tributary to Lake Tahoe which is higher than any applicable standard must be maintained at that higher quality. The following requirements to maintain existing higher quality waters apply at the following control points:

STANDARDS TO MAINTAIN HIGHER QUALITY WATERS WITHIN LAKE TAHOE TRIBUTARIES

Control Point	pH (Standard Units)	Total Phosphates (as P) - mg/l	Total Nitrogen (as N) - mg/l	Chloride, Dissolved, mg/l	Total Dissolved Solids, mg/l	Total Suspended Solids, mg/l	Turbidity, NTU	Color, PCU
E. Fork Incline Cr. at Ski Incline *a	SV: 7.0-7.9		SV: 1.1 AA: 0.4	SV: 4.0 AA: 2.0	SV: 70 AA: 55			no increase > 10
W. Fork Incline C. at State Hwy. 431 *b	SV: 7.0-8.0		SV: 0.9 AA: 0.5	SV: 6.0 AA: 5.0	SV: 80 AA: 80	SV: N/A AA: 8.0	SV: 3.0 AA: 20	no increase > 10
Incline Creek at Lakeshore Drive *c	SV: 7.0-8.3		SV: 1.8 AA: 1.2	SV: 8.0 AA: 6.0	SV: 85 AA: 70			no increase > 10
E. Fork Third Cr. at State Hwy. 431 *d	SV: 7.0-8.0	SV: AA: 0.045	SV: 0.5 AA: 0.3	SV: 5.0 AA: 3.0	SV: 80 AA: 65	SV: N/A AA: 20.0	SV: 3.0 AA: 2.0	no increase > 10
Third Creek at Lakeshore Drive *e	SV: 7.0-8.4		SV: 1.4 AA: 1.0	SV: 5.0 AA: 4.0	SV: 75 AA: 55			no increase > 10
Wood Creek at Lakeshore Drive *f	SV: 7.0-8.2		SV: 0.7 AA: 0.5	SV: 5.0 AA: 3.0	SV: 70 AA: 60			no increase > 10
Second Creek at Second Creek Dr. *g	SV: 7.0-8.0		SV: 0.3 AA: 0.2	SV: 5.0 AA: 3.0	SV: 70 AA: 65			no increase > 10
Second Creek at Lakeshore Drive *h	SV: 7.0-8.2		SV: 0.6 AA: 0.3	SV: 6.0 AA: 3.0	SV: 80 AA: 60			no increase > 10
First Creek at Dale and Knotty Pine Dr. *i	SV: 7.0-8.1	SV: AA: 0.043	SV: 0.3 AA: 0.2	SV: 3.0 AA: 2.0	SV: 80 AA: 70		SV: 4.0 AA: 2.0	no increase > 10
First Creek at Lakeshore Drive *j	SV: 7.0-8.2		SV: 0.6 AA: 0.3	SV: 4.0 AA: 3.0	SV: 90 AA: 75		SV: 9.0 AA: 8.0	no increase > 10
Glenbrook Creek *k	SV: 7.0-8.2	SV: 0.060 AA: N/A	SV: 0.5 AA: 0.5			SV: 22.0 AA: N/A		no increase > 10
Logan House Creek *l	SV: 7.0-8.5	SV: 0.035 AA: 0.035	SV: 0.5 AA: 0.5			SV: 11.0 AA: N/A		no increase > 10
Eagle Rock Creek *m	SV: 7.0-8.4	SV: 0.050 AA: 0.045	SV: 0.2 AA: 0.3			SV: 12.0 AA: 12.0		no increase > 10
Edgewood Creek at Palisades Drive *n	SV: 7.0-8.4	SV: 0.100 AA: N/A	SV: 0.6 AA: 0.6			SV: N/A AA: N/A		no increase > 10
Edgewood Creek at Stateline *o	SV: 7.0-8.4	SV: 0.065 AA: N/A	SV: 0.4 AA: N/A			SV: 17.0 AA: N/A		no increase > 10

FOOTNOTES

- Control point at the East Fork of Incline Creek at the ski resort. The standards specified in the table apply to the East Fork of Incline Creek from the ski resort to the origin of the East Fork of Incline Creek.
- Control point at the West Fork of Incline Creek at State Highway 431. The standards specified in the table apply to the West Fork of the Incline Creek from State Highway 431 to the origin of the West Fork of Incline Creek.
- Control point at Incline Creek at Lakeshore Drive. The standards specified in the table apply to Incline Creek from the confluence with Lake Tahoe to the ski resort in the East Fork of Incline Creek and to State Highway 431 in the West Fork of Incline Creek.
- Control point at the East Fork of Third Creek at State Highway 431. The standards specified in the table apply from the East Fork of Third Creek at State Highway 431 to the origin of the East Fork of Third Creek.
- Control point at Third Creek at Lakeshore Drive. The standards specified in the table apply to Third Creek from the confluence with Lake Tahoe to State Highway 431 in the East Fork of Third Creek and to the origin of the West Fork of Third Creek.
- Control point at Wood Creek at Lakeshore Drive. The standards specified in the table apply to Wood Creek from the confluence with Lake Tahoe to the origin of Wood Creek.
- Control point at Second Creek at Second Creek Drive. The standards specified in the table apply to Second Creek from Second Creek Drive to the origin of Second Creek.
- Control point at Second Creek at Lakeshore Drive. The standards specified in the table apply to Second Creek from the confluence with Lake Tahoe to Second Creek Drive.
- Control point at First Creek at Dale and Knotty Pine Drives. The standards specified in the table apply to First Creek from Dale and Knotty Pine Drives to the origin of First Creek.
- Control point at First Creek and Lakeshore Drive. The standards specified in the table apply to First Creek from the confluence with Lake Tahoe to Dale and Knotty Pine Drives.
- Control point on Glenbrook Creek which is located 100 feet from the mouth of Glenbrook Creek at Glenbrook. The standards specified in the table apply to Glenbrook Creek from the confluence with Lake Tahoe to the origin of Glenbrook Creek.

- l. Control point on Logan House Creek which is located 0.3 miles upstream from U.S. Highway 50. The standards specified in the table apply to Logan House Creek from the confluence with Lake Tahoe to the origin of Logan House Creek.
- m. Control point on Eagle Rock Creek which is located 0.2 miles upstream from the confluence with Edgewood Creek. The standards specified in the table apply to Eagle Rock Creek from the confluence with Edgewood Creek to the origin of Eagle Rock Creek.
- n. Control point on Edgewood Creek at Palisades Drive which is located 50 feet downstream from the culvert at Palisades Drive. The standards specified in the table apply to Edgewood Creek from the control point upstream to the origins of Edgewood Creek.
- o. Control point on Edgewood Creek at Stateline which is located on the upstream side of the culvert on U.S. Highway 50. The standards specified in the table apply to Edgewood Creek from the confluence with Lake Tahoe upstream to the control point on Edgewood Creek at Palisades Drive.

(Added to NAC by Environmental Comm'n, eff. 11-9-95; A 11-27-96)

## NAC 445A.192 Colorado River below Davis Dam. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Colorado River

Control Point below Davis Dam. The limits of this table apply from the state line below Davis Dam to Lake Mohave Inlet.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Apr. : $\leq 13^\circ\text{C}$ May-June : $\leq 17^\circ\text{C}$ Jul.-Oct. : $\leq 23^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	— —	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : $\leq 0.02$ S.V. : $\leq 0.03$	A-Avg. : $\leq 0.05$ —	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Nitrate A-Avg. : $\leq 1.1$ S.V. : $\leq 1.6$	Nitrate S.V. : $\leq 10$ Nitrite S.V. : $\leq 0.6$	Municipal or domestic supply, <sup>b</sup> aquatic life, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : $\geq 6.0$ Jun.-Oct. : $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : $\leq 25$	Aquatic life. <sup>b</sup>
Turbidity - NTU	— —	S.V. : $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	e	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	—	c	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M. : $\leq 50$ S.V. : $\leq 100$	$\leq 200/400^d$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 235$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The most restrictive beneficial use.
- c. The salinity standard for the Colorado River System is specified in NAC 445A.143.
- d. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- e. Increase in color must not be more than 10 PCU above natural conditions.
- f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 46, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

# **NAC 445A.193 Colorado River below Hoover Dam. (NRS 445A.425, 445A.520)**

## STANDARDS OF WATER QUALITY Colorado River

Control Point below Hoover Dam. The limits of this table apply from Lake Mohave Inlet to Hoover Dam.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Apr. : $\leq 13^\circ\text{C}$ May-June : $\leq 17^\circ\text{C}$ Jul.-Oct. : $\leq 23^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	— —	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : $\leq 0.02$ S.V. : $\leq 0.033$	A-Avg. : $\leq 0.05$ —	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : $\leq 1.0$ S.V. : $\leq 1.5$	Nitrate S.V. : $\leq 10$ Nitrite S.V. : $\leq 0.6$	Municipal or domestic supply, <sup>b</sup> aquatic life, <sup>b</sup> recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : $\geq 6.0$ Jun.-Oct. : $\geq 5.0$	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : $\leq 25$	Aquatic life. <sup>b</sup>
Turbidity - NTU	— —	S.V. : $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	e	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	—	c	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M. : $\leq 50$ S.V. : $\leq 100$	$\leq 200/400^d$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 235$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- The salinity standard for the Colorado River System is specified in NAC 445A.143.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, 7-31-85, eff. 8-1-85; A by R099-02, 12-17-2002)

**NAC 445A.194 Requirements to maintain existing higher quality for area of Lake Mead; standards for beneficial uses for area not covered by NAC 445A.196. (NRS 445A.425, 445A.520)**

1. The requirements to maintain existing higher quality become effective when the existing water quality is higher than the water quality standard for beneficial uses, as determined by the commission. Once the requirements to maintain existing higher quality become effective, the requirements are applicable thereafter. The requirements to maintain existing higher quality for the area of Lake Mead which is not covered by NAC 445A.197 are set forth in NAC 445A.195, and include, without limitation, requirements relating to temperature, pH, chlorophyll a, total dissolved solids, chloride, sulfate, total inorganic nitrogen, turbidity and color.

2. The water quality standards for beneficial uses for the area of Lake Mead which is not covered by NAC 445A.197 are set forth in NAC 445A.195, and include, without limitation, standards relating to temperature, pH, dissolved oxygen, un-ionized ammonia, total dissolved solids, chloride, sulfate, suspended solids, nitrate, nitrite, turbidity, fecal coliform and E. coli. The beneficial uses for this area are:

- (a) Irrigation;
- (b) Watering of livestock;
- (c) Recreation involving contact with the water;
- (d) Recreation not involving contact with the water;
- (e) Industrial supply;
- (f) Municipal or domestic supply, or both;
- (g) Propagation of wildlife; and
- (h) Propagation of aquatic life, including, without limitation, a warm-water fishery.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; R062-98, 8-4-98)

**NAC 445A.195 Lake Mead excluding area covered by NAC 445A.197. (NRS 445A.425, 445A.520)**

**Lake Mead**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES AS DESIGNATED IN NAC 445A.194 (Most Stringent Use Listed First)
Temperature Single Value	$\Delta T$ 0°C <sup>a</sup>	$\Delta T$ 2°C <sup>a</sup>	Propagation of aquatic life, including, without limitation, a warm-water fishery.
PH Single Value	95% of samples not to exceed 8.8 SU	Within Range 6.5-9.0 SU	Propagation of aquatic life, including, without limitation, a warm-water fishery, recreation involving contact with water, propagation of wildlife, municipal or domestic supply, or both, industrial supply, irrigation and watering of livestock.
Dissolved Oxygen Single Value	—	$\geq 5$ mg/l in the epilimnion or average in water column during periods of nonstratification	Propagation of aquatic life, including, without limitation, a warm-water fishery, watering of livestock, recreation involving contact with water, recreation not involving contact with water, municipal or domestic supply, or both, and propagation of wildlife.
Chlorophyll <i>a</i> - $\mu$ g/l	b		Recreation involving contact with water, propagation of aquatic life, including, without limitation, a warm-water fishery, recreation not involving contact with water and municipal or domestic supply, or both.
Un-Ionized Ammonia-mg/l	—	c	Propagation of aquatic life, including, without limitation, a warm-water fishery.
Total Dissolved Solids  Single Value	Flow Weighted Annual Average Concentration $\leq 723$ mg/l measured below Hoover Dam <sup>d</sup> —	— $\leq 1000$ mg/l	Municipal or domestic supply, or both, and irrigation.
Chloride Single Value	e	$\leq 400$ mg/l <sup>e</sup>	Municipal or domestic supply, or both, watering of livestock and propagation of wildlife.
Sulfate Single Value	e	$\leq 500$ mg/l <sup>e</sup>	Municipal or domestic water supply, or both.
Suspended Solids Single Value	—	$\leq 25$ mg/l	Propagation of aquatic life, including, without limitation, a warm-water fishery, and recreation not involving contact with water.
Nitrogen Species as N Single Value	Total Inorganic Nitrogen 95% of Samples $\leq 4.5$ mg/l	Nitrate $\leq 10$ mg/l Nitrite $\leq 1$ mg/l	Municipal or domestic supply, or both, watering of livestock, propagation of aquatic life, including, without limitation, a warm-water fishery, and propagation of wildlife.
Turbidity Single Value	f	$\leq 25$ NTU	Propagation of aquatic life, including, without limitation, a warm-water fishery, municipal or domestic supply, or both, recreation involving contact with water and recreation not involving contact with water.
Fecal Coliform		$\leq 200/400^g$ MF or MPN/100 ml	Recreation involving contact with water, irrigation, recreation not involving contact with water, municipal or domestic supply, or both, propagation of wildlife and watering of livestock.
E. Coli 30-day Log Mean Single Value	— —	$\leq 126$ MF/100 ml $\leq 235$ MF/100 ml	Recreation involving contact with water, recreation not involving contact with water, municipal or domestic supply, or both, irrigation and watering of livestock.
Color-Pt-Co Units Single Value	h	—	Recreation not involving contact with water and municipal or domestic supply, or both.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- b. The requirements for chlorophyll a are:
  - (1) Not more than one monthly mean in a calendar year at Station 3 may exceed 45µg/l.
  - (2) The mean for chlorophyll a in summer (July 1-September 30) must not exceed 40 µg/l at Station 3, and the mean for 4 consecutive summer years must not exceed 30 µg/l. The sample must be collected from the center of the channel and must be representative of the top 5 meters of the channel. "Station 3" means the center of the channel at which the depth is from 16 to 18 meters.
  - (3) The mean for chlorophyll a in the growing season (April 1-September 30) must not exceed 16 µg/l at LM4 and 9 µg/l at LM5. LM4 is located just outside of the Las Vegas Bay launch ramp and marina, next to buoy RW "1." LM5 is located next to buoy RW "A" with the southshore landmark of Cresent Island.
  - (4) The mean for chlorophyll a in the growing season (April 1-September 30) must not exceed 5 µg/l in the open water of Boulder Basin, Virgin Basin, Gregg Basin and Pierce Basin. The single value must not exceed 10 µg/l for more than 5 percent of the samples.
  - (5) Not less than two samples per month must be collected between the months of March and October. During the months when only one sample is available, that value must be used in place of the monthly mean.
- c. See footnote b to NAC 445A.197.
- d. The details of this standard are set forth in the "1996 Review-Water Quality Standards for Salinity, Colorado River System" approved by the commission on March 25, 1998.
- e. The combination of this constituent with other constituents comprising TDS must not result in the violation of the TDS standards for Lake Mead and the Colorado River.
- f. Turbidity must not exceed that characteristic of natural conditions by more than 10 Nephelometric Units.
- g. Based on a minimum of not less than five samples taken over a 30-day period, the fecal coliform bacterial level must not exceed a log mean of 200 per 100 ml nor must more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- h. Color must not exceed that characteristic of natural conditions by more than 10 units Platinum-Cobalt Scale.

The commission recognizes that at entrances of tributaries to Lake Mead, localized violations of standards may occur.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; R062-98, 8-4-98; R017-99, 9-27-99)



**NAC 445A.196 Requirements to maintain existing higher quality for area of Lake Mead from western boundary of Las Vegas Bay Campground to confluence of Las Vegas Wash; standards for beneficial uses; goal of requirements and standards. (NRS 445A.425, 445A.520)**

1. The requirements to maintain existing higher quality become effective when the existing water quality is higher than the water quality standard for beneficial uses, as determined by the commission. Once the requirements to maintain existing higher quality become effective, the requirements are applicable thereafter. For the area of Lake Mead from the western boundary of the Las Vegas Bay Campground to the confluence of the Las Vegas Wash, the requirements to maintain existing higher quality are set forth in NAC 445A.197, and include, without limitation, requirements relating to temperature, pH, total inorganic nitrogen, total dissolved solids and turbidity.

2. The water quality standards for beneficial uses for Lake Mead from the western boundary of the Las Vegas Bay Campground to the confluence of the Las Vegas Wash are set forth in NAC 445A.197, and include, without limitation, standards relating to temperature, pH, dissolved oxygen, nitrate, nitrite, un-ionized ammonia, total dissolved solids, suspended solids, turbidity and fecal coliform. The beneficial uses for this area are:

- (a) Irrigation;
- (b) Watering of livestock;
- (c) Recreation not involving contact with the water;
- (d) Industrial supply;
- (e) Propagation of wildlife; and
- (f) Propagation of aquatic life, including, without limitation, a warm-water fishery.

3. The goal of the requirements of subsection 1 and the standards of subsection 2 is to ensure that all of Lake Mead is fishable and swimable by the next triennial review required by the Clean Water Act, 33 U.S.C. §§ 1251 et seq.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; R062-98, 8-4-98)

**NAC 445A.197 Lake Mead from western boundary of Las Vegas Bay Campground to confluence of Las Vegas Wash. (NRS 445A.425, 445A.520) Control point at the Western Boundary of the Las Vegas Bay Campground.**

**Inner Las Vegas Bay**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES AS DESIGNATED IN NAC 445A.196 (Most Stringent Use Listed First)
Temperature Single Value	$\Delta T 0^{\circ}\text{C}^a$	$\Delta T 2^{\circ}\text{C}^a$	Propagation of aquatic life, including, without limitation, a warm-water fishery.
pH Single Value	95% of samples not to exceed 8.9 SU	Within Range 6.5-9.0 SU	Propagation of aquatic life, including, without limitation, a warm-water fishery, propagation of wildlife, irrigation, industrial supply and watering of livestock.
Dissolved Oxygen Single Value	—	$\geq 5 \text{ mg/l}$	Propagation of aquatic life, including, without limitation, a warm-water fishery, watering of livestock, recreation not involving contact with water and propagation of wildlife.
Nitrogen Species as Single Value	Total Inorganic Nitrogen 95% of Samples $\leq 5.3 \text{ mg/l}$	Nitrate $\leq 90 \text{ mg/l}$ Nitrite $\leq 5 \text{ mg/l}$	Propagation of aquatic life, including, without limitation, a warm-water fishery, watering of livestock and propagation of wildlife.
Un-Ionized Ammonia as N-mg/l	—	b	Propagation of aquatic life, including, without limitation, a warm-water fishery.
Total Dissolved Solids Single Value	c	$\leq 3000 \text{ mg/l}$	Watering of livestock and irrigation.
Suspended Solids Single Value	—	$\leq 25 \text{ mg/l}$	Propagation of aquatic life, including, without limitation, a warm-water fishery and recreation not involving contact with water.
Turbidity Single Value	d	$\leq 25 \text{ NTU}$	Propagation of aquatic life, including, without limitation, a warm-water fishery and recreation not involving contact with water.
Fecal Coliform MF or MPN/100 ml Single Value	—	e	Propagation of wildlife, recreation not involving contact with water, irrigation and watering of livestock.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
  - The 4-day average for the concentration of un-ionized ammonia in the vertical column of water and the four-sample rolling average for each interval sampled must not exceed 0.05 mg/l more often than once every 3 years. The daily value for this average must account for diurnal fluctuation. Data must be collected at Station 2 from at least three locations between the surface and total depth. This standard is not applicable to the area between Station 2 and the confluence of the Las Vegas Wash. The single value must not exceed 0.45 mg/l more often than once every 3 years. "Station 2" means the center of the channel at which the depth is 10 meters.
  - Any increase in total dissolved solids must not result in a violation of the standards set forth in "1996 Review-Water Quality Standards for Salinity, Colorado River System" approved by the commission on March 25, 1998.
  - Turbidity must not exceed that characteristic of natural conditions by more than 10 Nephelometric Units.
  - Any discharge from a point source into Las Vegas Wash must not exceed a log mean of 200 per 100 ml based on a minimum of not less than five samples taken over a 30-day period nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- The commission recognizes that, because of discharges of tributaries, localized violations of standards may occur in the inner Las Vegas Bay.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; 7-5-94; R062-98, 8-4-98)

**NAC 445A.198 Requirements to maintain existing higher quality for area of Las Vegas Wash from Telephone Line Road to confluences of discharges from Clark County and City of Las Vegas wastewater treatment plants; standards for beneficial uses; goal of requirements and standards. (NRS 445A.425, 445A.520)**

1. The requirements to maintain existing higher quality become effective when the existing water quality is higher than the water quality standard for beneficial uses, as determined by the commission. Once the requirements to maintain existing higher quality become effective, the requirements are applicable thereafter. For the area of the Las Vegas Wash from Telephone Line Road to the confluence of the discharges from the Clark County wastewater treatment plant and the City of Las Vegas wastewater treatment plant, which encompasses the City of Henderson wastewater treatment plant discharge, the requirements to maintain existing higher quality are set forth in NAC 445A.199, and include, without limitation, requirements relating to temperature, pH, total inorganic nitrogen and total dissolved solids.

2. The water quality standards for beneficial uses for the Las Vegas Wash from Telephone Line Road to the confluence of the discharges from the Clark County wastewater treatment plant and the City of Las Vegas wastewater treatment plant, which encompasses the City of Henderson wastewater treatment plant discharge, are set forth in NAC 445A.199, and include, without limitation, standards relating to pH, dissolved oxygen, nitrate, nitrite, total suspended solids, total dissolved solids and fecal coliform. The beneficial uses for this area are:

- (a) Irrigation;
- (b) Watering of livestock;
- (c) Recreation not involving contact with the water;
- (d) Maintenance of a freshwater marsh;
- (e) Propagation of wildlife; and
- (f) Propagation of aquatic life, excluding fish. This paragraph does not preclude the establishment of a fishery.

3. The goal of the requirements of subsection 1 and the standards of subsection 2 is to ensure that the beneficial uses for the Las Vegas Wash from Telephone Line Road to the confluence of the discharges from the Clark County wastewater treatment plant and the City of Las Vegas wastewater treatment plant, which encompasses the City of Henderson wastewater treatment plant discharge, will include, without limitation, the propagation of aquatic life, including, without limitation, fish by the next triennial review required by the Clean Water Act, 33 U.S.C. §§ 1251 et seq.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; R062-98, 8-4-98)

**NAC 445A.199 Las Vegas Wash from Telephone Line Road to confluence of discharges from City of Las Vegas and Clark County wastewater treatment plants. (NRS 445A.425, 445A.520)** Control point at Telephone Line Road. The limits in this table apply from Telephone Line Road to the confluence of the discharges from the City of Las Vegas and Clark County wastewater treatment plants, which encompasses the City of Henderson wastewater treatment plant discharge.

## Upper Las Vegas Wash

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARD FOR BENEFICIAL USES	BENEFICIAL USES AS DESIGNATED IN NAC 445A.198 (MOST STRINGENT USE LISTED FIRST)
Temperature Single Value	$\Delta T$ 0°C <sup>a</sup>	—	—
pH Single Value		Within Range 6.5-9.0 SU	Propagation of aquatic life, excluding fish, propagation of wildlife, irrigation and watering of livestock.
Dissolved Oxygen-mg/l	—	<sup>b</sup>	Propagation of aquatic life, excluding fish, watering of livestock, recreation not involving contact with water and propagation of wildlife.
Nitrogen Species as N Single Value	Total Inorganic Nitrogen 95% of Samples $\leq 20$ mg/l	Nitrate $\leq 100$ mg/l Nitrite $\leq 10$ mg/l	Watering of livestock and propagation of wildlife.
Total Suspended Solids		$\leq 135$ mg/l <sup>c</sup>	Propagation of aquatic life, excluding fish.
Total Dissolved Solids at 180°C Single Value	95% of samples $\leq 1900$ mg/l	$\leq 3000$ mg/l	Watering of livestock, irrigation and maintenance of a freshwater marsh.
Fecal Coliform MF or MPN/100 ml	—	<sup>d</sup>	Recreation not involving contact with water, propagation of wildlife, irrigation and watering of livestock.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone except during storm flow conditions.
- b. Aerobic conditions are desirable for the beneficial uses of propagation of aquatic life, excluding fish, watering of livestock, recreation not involving contact with water and propagation of wildlife. So as not to prevent the development and restoration of marshes and wetlands in the Wash, aerobic conditions are established as a goal rather than a standard and the goal is not intended to preclude development of a limited fishery in selected areas. Aerobic conditions is intended to mean the absence of objectionable odors that may be caused by wastewater discharges in excess of existing odors.
- c. Total suspended solids standard does not apply when flows are greater than 110 percent of average flow as measured at the nearest gage. "Average flow" is defined as the 12-month rolling average of the average monthly flow.
- d. Any discharge from a point source into the Las Vegas Wash must not exceed a log mean of 200 per 100 ml based on a minimum of not less than five samples taken over a 30-day period nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A by R062-98, 8-4-98)

### **NAC 445A.200 Requirements to maintain existing higher quality for area from confluence of Las Vegas Wash with Lake Mead to Telephone Line Road; standards for beneficial uses; goal of requirements and standards. (NRS 445A.425, 445A.520)**

1. The requirements to maintain existing higher quality become effective when the existing water quality is higher than the water quality standard for beneficial uses, as determined by the commission. Once the requirements to maintain existing higher quality become effective, the requirements are applicable thereafter. For the area from the confluence of the Las Vegas Wash with Lake Mead to Telephone Line Road, the requirements to maintain existing higher quality are set forth in NAC 445A.201, and include, without limitation, requirements relating to temperature, pH, total inorganic nitrogen and total dissolved solids.

2. The water quality standards for beneficial uses for the Las Vegas Wash from the confluence of the Las Vegas Wash with Lake Mead to Telephone Line Road are set forth in NAC 445A.201, and include, without limitation, standards relating to pH, dissolved oxygen, nitrate, nitrite, total suspended solids, total dissolved solids and fecal coliform. The beneficial uses for this area are:

- (a) Irrigation;

- (b) Watering of livestock;
- (c) Recreation not involving contact with the water;
- (d) Maintenance of a freshwater marsh;
- (e) Propagation of wildlife; and
- (f) Propagation of aquatic life, excluding fish. This paragraph does not preclude the establishment of a fishery.

3. The goal of the requirements of subsection 1 and the standards of subsection 2 is to ensure that the beneficial uses for the Las Vegas Wash from the confluence of the Las Vegas Wash with Lake Mead to Telephone Line Road will include, without limitation, the propagation of aquatic life, including, without limitation, fish by the next triennial review required by the Clean Water Act, 33 U.S.C. §§ 1251 et seq.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; R062-98, 8-4-98)

**NAC 445A.201 Confluence of Las Vegas Wash with Lake Mead to Telephone Line Road. (NRS 445A.425, 445A.520)** The limits in this table apply from the confluence of the Las Vegas Wash with Lake Mead to Telephone Line Road.

#### Lower Las Vegas Wash

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES AS DESIGNATED IN NAC 445A.200 (Most Stringent Use Listed First)
Temperature Single Value	$\Delta T$ 0°C <sup>a</sup>	—	—
pH Single Value		Within Range 6.5-9.0 SU	Propagation of aquatic life, excluding fish, propagation of wildlife, irrigation and watering of livestock.
Dissolved Oxygen mg/l		b	Propagation of aquatic life, excluding fish, watering of livestock, recreation not involving contact with water and propagation of wildlife.
Nitrogen Species as N Single Value	Total Inorganic Nitrogen 95% of Samples $\leq 17$ mg/l	Nitrate $\leq 100$ mg/l Nitrite $\leq 10$ mg/l	Watering of livestock and propagation of wildlife.
Total Suspended Solids		$\leq 135$ mg/l <sup>c</sup>	Propagation of aquatic life, excluding fish.
Total Dissolved Solids at 180°C Single Value	95% of samples $\leq 2400$ mg/l	$\leq 3000$ mg/l	Watering of livestock, irrigation and maintenance of a freshwater marsh.
Fecal Coliform MF or MPN/100 ml	—	d	Recreation not involving contact with water, propagation of wildlife, irrigation and watering of livestock.

- a. Maximum allowable increase in temperature above receiving water temperature at the boundary of an approved mixing zone.
- b. Aerobic conditions are desirable for the beneficial uses of propagation of aquatic life, excluding fish, watering of livestock, recreation not involving contact with the water and propagation of wildlife. So as not to prevent the development and restoration of marshes and wetlands in the Wash, aerobic conditions are established as a goal rather than a standard and the goal is not intended to preclude development of a limited fishery in selected areas. Aerobic conditions is intended to mean the absence of objectionable odors that may be caused by wastewater discharges in excess of existing odors.
- c. This standard does not apply when flows are greater than 110 percent of average flow as measured at the nearest gage. As used in this paragraph, "average flow" means the 12-month rolling average of the average monthly flow.
- d. Any discharge from a point source into Las Vegas Wash must not exceed a log mean of 200 per 100 ml based on a minimum of not less than five samples taken over a 30-day period nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 47, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 11-22-82; R062-98, 8-4-98)

**NAC 445A.202 Beneficial uses for Humboldt River.** The water quality standards for the Humboldt River from Woolsey to the source of the main stem are prescribed in NAC 445A.203 to 445A.208, inclusive. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation involving contact with the water;
4. Recreation not involving contact with the water;
5. Industrial supply;
6. Municipal or domestic supply, or both;
7. Propagation of aquatic life including warm-water fisheries; and
8. Propagation of wildlife.

(Added to NAC by Environmental Comm'n, eff. 6-29-84; A 9-25-90)—(Substituted in revision for NAC 445.13703)

# **NAC 445A.203 Humboldt River near Osino. (NRS 445A.425, 445A.520)**

## STANDARDS OF WATER QUALITY Humboldt River

Control Point near Osino. The limits in this table apply from the control point near Osino to the upstream source of the main stem.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - $\Delta T$ - Single Value <sup>a</sup>	$\Delta T = 0^{\circ}\text{C}$	$\Delta T \leq 2^{\circ}\text{C}$	Aquatic life (warm-water fishery), <sup>b</sup> and recreation involving contact with the water.
pH Units Standard Units	A-Avg.: 7.0 - 8.3 S.V.: 7.0 - 8.5	S.V.: 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life (warm-water fishery), irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V.: $\geq 5.0$	Aquatic life (warm-water fishery), <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg.: $\leq 22$ S.V.: $\leq 25$	S.V.: $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Total Phosphorus (as P) - mg/l	—	Apr.-Nov. Seasonal Avg.: $\leq 0.1$	Aquatic life (warm-water fishery), <sup>b</sup> bathing and recreation involving contact with the water, municipal or domestic supply and recreation not involving contact with the water.
Nitrogen species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 1.5$ Apr.-Nov. S.V.: $\leq 2.4$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 1.0$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation, watering of livestock and aquatic life (warm-water fishery).
Total Ammonia (as N) - mg/l	—	f	Aquatic life. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg.: $\leq 370$ S.V.: $\leq 385$	A-Avg.: $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Suspended Solids - mg/l	—	Annual Median : $\leq 80^{\circ}$	Aquatic life (warm-water fishery). <sup>b</sup>
Sulfate - mg/l	—	S.V.: $\leq 250$	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply. <sup>b</sup>
Turbidity - NTU	—	S.V.: $\leq 50$	Aquatic life (warm-water fishery), <sup>b</sup> and municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: $\leq 75$ S.V.: $\leq 200$	$\leq 200/400^{\circ}$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Sodium - SAR	—	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The maximum allowable point source discharge is S.V.  $\leq 80$  mg/l of suspended solids.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 48, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-29-95; R099-02, 12-17-2002)

## NAC 445A.204 Humboldt River at Palisade Gage. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Humboldt River

Control Point at the Palisade Gage. The limits of this table apply from the control point at Palisade Gage upstream to the Osino control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - $\Delta T$ - Single Value <sup>a</sup>	$\Delta T = 0^{\circ}\text{C}$	$\Delta T \leq 2^{\circ}\text{C}$	Aquatic life (warm-water fishery) <sup>b</sup> and recreation involving contact with the water.
pH Units Standard Units	A-Avg.: 7.0 - 8.5 S.V.: 7.0 - 8.6	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \pm 0.5$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life (warm-water fishery), irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V.: $\geq 5.0$	Aquatic life (warm-water fishery), <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg.: $\leq 21$ S.V.: $\leq 30$	S.V.: $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Total Phosphorus (as P) - mg/l	—	Apr.-Nov. Seasonal Avg.: $\leq 0.1$	Aquatic life (warm-water fishery), <sup>b</sup> bathing and recreation involving contact with the water, municipal or domestic supply and recreation not involving contact with the water.
Nitrogen species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 1.4$ Apr.-Nov. S.V.: $\leq 2.4$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 1.0$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation, watering of livestock, and aquatic life (warm-water fishery).
Total Ammonia (as N) - mg/l	—	f	Aquatic life. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg.: $\leq 350$ S.V.: $\leq 400$	A-Avg.: $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Suspended Solids - mg/l	—	Annual Median: $\leq 80^{\circ}$	Aquatic life (warm-water fishery). <sup>b</sup>
Sulfate - mg/l	—	S.V.: $\leq 250$	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply. <sup>b</sup>
Turbidity - NTU	—	S.V.: $\leq 50$	Aquatic life (warm-water fishery), <sup>b</sup> and municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: $\leq 20$ S.V.: $\leq 150$	$\leq 200/400^{\circ}$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water, <sup>b</sup> and recreation not involving contact with the water.
Sodium - SAR	—	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- b. The most restrictive beneficial use.
- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. The maximum allowable point source discharge is S.V.  $\leq 80$  mg/l of suspended solids.
- f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 49, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-29-95; R099-02, 12-17-2002)



**NAC 445A.205 Humboldt River at Battle Mountain Gage. (NRS 445A.425, 445A.520)**

**STANDARDS OF WATER QUALITY  
Humboldt River**

Control Point at the Battle Mountain Gage. The limits of this table apply from the control point at Battle Mountain Gage upstream to the Palisade Gage control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - $\Delta T$ - Single Value <sup>a</sup>	$\Delta T = 0^{\circ}\text{C}$	$\Delta T \leq 2^{\circ}\text{C}$	Aquatic life (warm-water fishery) <sup>b</sup> and recreation involving contact with the water.
pH Units Standard Units	A-Avg. : 7.0 - 8.4 S.V. : 7.0 - 8.6	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life (warm-water fishery), irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : $\geq 5.0$	Aquatic life (warm-water fishery), <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : $\leq 50$ S.V. : $\leq 70$	S.V. : $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Total Phosphorus (as P) - mg/l	—	Apr.-Nov. Seasonal Avg. : $\leq 0.1$	Aquatic life (warm-water fishery), <sup>b</sup> bathing and recreation involving contact with the water, municipal or domestic supply and recreation not involving contact with the water.
Nitrogen species (N) - mg/l	Total Nitrogen A-Avg. : $\leq 1.9$ Apr.-Nov. S.V. : $\leq 4.0$	Nitrate S.V. : $\leq 10$ Nitrite S.V. : $\leq 1.0$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation, watering of livestock and aquatic life (warm-water fishery).
Total Ammonia (as N) - mg/l	—	f	Aquatic life. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg. : $\leq 425$ S.V. : $\leq 520$	A-Avg. : $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Suspended Solids - mg/l	—	Annual Median : $\leq 80^{\circ}$	Aquatic life (warm-water fishery). <sup>b</sup>
Sulfate - mg/l	—	S.V. : $\leq 250$	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply. <sup>b</sup>
Turbidity - NTU	—	S.V. : $\leq 50$	Aquatic life (warm-water fishery), <sup>b</sup> and municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean : $\leq 50$ S.V. : $\leq 200$	$\leq 200/400^{\circ}$	Recreation involving contact with water, <sup>b</sup> recreation not involving contact with water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Sodium - SAR	—	A-Avg. : $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- b. The most restrictive beneficial use.
- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. The maximum allowable point source discharge is S.V.  $\leq 80$  mg/l of suspended solids.
- f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 50, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-29-95; R099-02, 12-17-2002)

**NAC 445A.206 Humboldt River at crossing of state highway 789. (NRS 445A.425, 445A.520)**

**STANDARDS OF WATER QUALITY  
Humboldt River**

Control Point where state highway 789 crosses the Humboldt River. The limits of this table apply from the control point where state highway 789 crosses the Humboldt River upstream to the Battle Mountain Gage control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - $\Delta T$ - Single Value <sup>a</sup>	$\Delta T = 0^{\circ}\text{C}$	$\Delta T \leq 2^{\circ}\text{C}$	Aquatic life (warm-water fishery) <sup>b</sup> and recreation involving contact with the water.
pH Units Standard Units	A-Avg. : 7.0 - 8.5 S.V. : 7.0 - 8.7	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5$	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life (warm-water fishery), irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : $\geq 5.0$	Aquatic life (warm-water fishery), <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : $\leq 60$ S.V. : $\leq 110$	S.V. : $\leq 250$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Total Phosphorus (as P) - mg/l	—	Apr.-Nov. Seasonal Avg. : $\leq 0.1$	Aquatic life (warm-water fishery), <sup>b</sup> bathing and recreation involving contact with the water, municipal or domestic supply and recreation not involving contact with the water.
Nitrogen species (N) - mg/l	Total Nitrogen A-Avg. : $\leq 2.9$ Apr.-Nov. S.V. : $\leq 3.7$	Nitrate S.V. : $\leq 10$ Nitrite S.V. : $\leq 1.0$	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation, watering of livestock and aquatic life (warm-water fishery).
Total Ammonia (as N) - mg/l	—	f	Aquatic life. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg. : $\leq 500$ S.V. : $\leq 560$	A-Avg. : $\leq 500$	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Suspended Solids - mg/l	—	Annual Median : $\leq 80^{\circ}$	Aquatic life (warm-water fishery). <sup>b</sup>
Sulfate - mg/l	—	S.V. : $\leq 250$	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply. <sup>b</sup>
Turbidity - NTU	—	S.V. : $\leq 50$	Aquatic life (warm-water fishery), <sup>b</sup> and municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: $\leq 40$ S.V. : $\leq 100$	$\leq 200/400^{\circ}$	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Sodium - SAR	—	A-Avg. : $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The maximum allowable point source discharge is S.V.  $\leq 80$  mg/l of suspended solids.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 51, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-19-95; R099-02, 12-17-2002)

## NAC 445A.207 Humboldt River at Imlay. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Humboldt River

Control Point at Imlay. The limits of this table apply from the control point at Imlay upstream to the Comus Gage control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - ΔT - Single Value <sup>a</sup>	ΔT = 0°C	ΔT ≤ 2°C	Aquatic life (warm-water fishery) <sup>b</sup> and recreation involving contact with the water.
pH Units Standard Units	A-Avg. : 7.0 - 8.5 S.V. : 7.0 - 8.7	S.V. : 6.5 - 9.0 : ±0.5	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life (warm-water fishery), irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : ≥5.0	Aquatic life (warm-water fishery), <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : ≤70 S.V. : ≤85	S.V. : ≤250	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Total Phosphorus (as P) - mg/l	—	Apr.-Nov. Seasonal Avg. : ≤0.1	Aquatic life (warm-water fishery), <sup>b</sup> bathing and recreation involving contact with the water, municipal or domestic supply and recreation not involving contact with the water.
Nitrogen species (N) - mg/l	Total Nitrogen A-Avg. : ≤2.4 Apr.-Nov. S.V. : ≤2.9	Nitrate S.V. : ≤10 Nitrite S.V. : ≤1.0	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation, watering of livestock and aquatic life (warm-water fishery).
Total Ammonia (as N) - mg/l	—	f	Aquatic life. <sup>b</sup>
Total Dissolved Solids - mg/l	S.V. : ≤590	A-Avg. : ≤500	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Suspended Solids - mg/l	—	Annual Median : ≤80e	Aquatic life (warm-water fishery). <sup>b</sup>
Sulfate - mg/l	—	S.V. : ≤250	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply. <sup>b</sup>
Turbidity - NTU	—	S.V. : ≤50	Aquatic life (warm-water fishery), <sup>b</sup> and municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: ≤30 S.V.: ≤150	≤200/400 <sup>c</sup>	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Sodium - SAR	—	A-Avg. : ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- b. The most restrictive beneficial use.
- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. The maximum allowable point source discharge is S.V. ≤80 mg/l of suspended solids.
- f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 52, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-29-95; R099-02, 12-17-2002)

# **NAC 445A.208 Humboldt River at Woolsey. (NRS 445A.425, 445A.520)**

## **STANDARDS OF WATER QUALITY Humboldt River**

Control Point at Woolsey. The limits of this table apply from the control point at Woolsey upstream to the Imlay control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - ΔT - Single Value <sup>a</sup>	ΔT = 0°C	ΔT ≤2°C	Aquatic life (warm-water fishery), <sup>b</sup> and recreation involving contact with the water.
pH Units Standard Units	A-Avg. : 7.0 - 8.9 S.V. : 7.0 - 9.0	S.V. : 6.5 - 9.0 ΔpH : ±0.5	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life (warm-water fishery), irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : ≥5.0	Aquatic life (warm-water fishery), <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : ≤130 S.V. : ≤175	S.V. : ≤250	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Total Phosphorus (as P) - mg/l	—	Apr.-Nov. Seasonal Avg. : ≤0.1	Aquatic life (warm-water fishery), <sup>b</sup> bathing and recreation involving contact with the water, municipal or domestic supply and recreation not involving contact with the water.
Nitrogen species (N) - mg/l	—	Nitrate S.V. : ≤10 Nitrite S.V. : ≤1.0	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation, watering of livestock and aquatic life (warm-water fishery).
Total Ammonia (as N) - mg/l	—	f	Aquatic life. <sup>b</sup>
Total Dissolved Solids - mg/l	A-Avg. : ≤600 S.V. : ≤700	A-Avg. : ≤1000	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Suspended Solids - mg/l	—	Annual Median : ≤80 <sup>c</sup>	Aquatic life (warm-water fishery). <sup>b</sup>
Sulfate - mg/l	—	S.V. : ≤250	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply. <sup>b</sup>
Turbidity - NTU	—	S.V. : ≤50	Aquatic life (warm-water fishery), <sup>b</sup> and municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: ≤100 S.V.: ≤200	≤200/400 <sup>c</sup>	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤235	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Sodium - SAR	—	A-Avg. : ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The maximum allowable point source discharge is S.V. ≤80 mg/l of suspended solids.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 53, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-29-95; R099-02, 12-17-2002)

**NAC 445A.209 Beneficial uses for Muddy River at Glendale Bridge.** The standards for water quality for the Muddy River at Glendale Bridge are prescribed in NAC 445A.210. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation not involving contact with the water;
4. Industrial supply;
5. Municipal or domestic supply, or both;
6. Propagation of wildlife; and
7. Propagation of aquatic life.

(Added to NAC by Environmental Comm'n, 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.1379)

# **NAC 445A.210 Muddy River at Glendale Bridge. (NRS 445A.425, 445A.520)**

## STANDARDS OF WATER QUALITY Muddy River

Control Point at Glendale Bridge. The limits of this table apply from the Glendale Bridge upstream to the river source.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Jun. : $\leq 21^\circ\text{C}$ Jul.-Oct. : $\leq 32^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life. <sup>b</sup>
pH Units	—	S.V. : 6.5 - 9.0 $\Delta\text{pH} : \pm 0.5 \text{ Max.}$	Propagation of wildlife, <sup>b</sup> aquatic life, <sup>b</sup> recreation not involving contact with the water, irrigation, watering of livestock, municipal or domestic supply and industrial supply
Total Phosphates (as P) - mg/l	—	A-Avg. : $\leq 0.1$	Aquatic life, <sup>b</sup> recreation not involving contact with the water, and municipal or domestic supply.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : $\leq 1.3$ S.V. : $\leq 1.4$	Nitrate S.V. : $\leq 10$ Nitrite S.V. : $\leq 1.0$	Municipal or domestic supply, <sup>b</sup> aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	—	S.V. : $\leq 5.0$	Aquatic life, <sup>b</sup> recreation not involving contact with the water, propagation of wildlife, watering of livestock, and municipal or domestic supply.
Turbidity - NTU	—	e	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	d	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	—	c	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform - No./100 ml	— —	A.G.M. : $\leq 1000$ S.V. : $\leq 2000$	Recreation not involving contact with the water, <sup>b</sup> municipal or domestic supply, <sup>b</sup> irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean	—	$\leq 630$	Recreation not involving contact with the water. <sup>b</sup>

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- The salinity standard for the Colorado River System is specified in NAC 445A.143.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 54, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

## NAC 445A.211 Muddy River at Overton. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Muddy River

Control Point at Overton. The limits of this table apply from the mouth of the river at Lake Mead to the Glendale Bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}^a$	Nov.-Jun.: $\leq 21^\circ\text{C}$ Jul.-Oct.: $\leq 32^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life. <sup>b</sup>
pH Units	—	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \pm 0.5 \text{ Max.}$	Propagation of wildlife, <sup>b</sup> aquatic life, <sup>b</sup> recreation not involving contact with the water, irrigation, watering of livestock and industrial supply.
Total Phosphates (as P) - mg/l	—	A-Avg.: $\leq 0.3$	Aquatic life <sup>b</sup> and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 1.3$ S.V.: $\leq 1.8$	Nitrate S.V.: $\leq 90$ Nitrite S.V.: $\leq 5.0$	Aquatic life, <sup>b</sup> watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	—	S.V.: $\geq 5.0$	Aquatic life, <sup>b</sup> recreation not involving contact with the water, propagation of wildlife and watering of livestock.
Turbidity - NTU	—	e	Aquatic life. <sup>b</sup>
Color - PCU	—	d	Aquatic life <sup>b</sup> .
Total Dissolved Solids - mg/l	—	c	Irrigation <sup>b</sup> and watering of livestock.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M.: $\leq 500$ S.V.: $\leq 1300$	A.G.M.: $\leq 1000$ S.V.: $\leq 2000$	Recreation not involving contact with the water, <sup>b</sup> irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean	—	$\leq 630$	Recreation not involving contact with the water. <sup>b</sup>

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The most restrictive beneficial use.
- c. The salinity standard for the Colorado River System is specified in NAC 445A.143.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. Increase in turbidity must not be more than 10 NTU above natural conditions.
- f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 55, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

## NAC 445A.212 Meadow Valley Wash. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Meadow Valley Wash

Control Point at confluence with Muddy River. The limits of this table apply from the confluence of the Meadow Valley Wash with the Muddy River to the bridge above Rox.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Jun.: $\leq 21^\circ\text{C}$ Jul.-Oct.: $\leq 32^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life. <sup>b</sup>
pH Units	—	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \pm 0.5$ Max.	Propagation of wildlife, <sup>b</sup> aquatic life, <sup>b</sup> recreation not involving contact with the water, irrigation, watering of livestock and industrial supply.
Total Phosphates (as P) - mg/l	—	A-Avg.: $\leq 0.1$	Aquatic life <sup>b</sup> and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 2.0$ S.V.: $\leq 3.3$	Nitrate S.V.: $\leq 90$ Nitrite S.V.: $\leq 5.0$	Aquatic life, <sup>b</sup> watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life. <sup>b</sup>
Dissolved Oxygen - mg/l	—	S.V.: $\geq 5.0$	Aquatic life, <sup>b</sup> recreation not involving contact with the water, propagation of wildlife and watering of livestock.
Turbidity - NTU	—	e	Aquatic life. <sup>b</sup>
Color - PCU	—	d	Aquatic life. <sup>b</sup>
Total Dissolved Solids - mg/l	—	c	Irrigation <sup>b</sup> and watering of livestock.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform - No./100 ml	—	A.G.M.: $\leq 1000$ S.V.: $\leq 2000$	Recreation not involving contact with the water, <sup>b</sup> irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean	—	$\leq 630$	Recreation not involving contact with the water. <sup>b</sup>

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- The salinity standard for the Colorado River System is specified in NAC 445A.143.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 56, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)



**NAC 445A.214 Beneficial uses for areas in Snake River Basin.**

1. The standards of water quality for:
  - (a) Big Goose Creek are prescribed in NAC 445A.215;
  - (b) Salmon Falls Creek are prescribed NAC 445A.216;
  - (c) Shoshone Creek are prescribed in NAC 445A.217;
  - (d) Jarbidge River, East Fork are prescribed in NAC 445A.218;
  - (e) Jarbidge River upstream from Jarbidge are prescribed in NAC 445A.219;
  - (f) Jarbidge River downstream from Jarbidge are prescribed in NAC 445A.220;
  - (g) Bruneau River, West Fork are prescribed in NAC 445A.221;
  - (h) Owyhee River, East Fork above Mill Creek are prescribed in NAC 445A.222;
  - (i) Owyhee River, East Fork south of Owyhee are prescribed in NAC 445A.223;
  - (j) Owyhee River, East Fork, Nevada-Idaho state line are prescribed in NAC 445A.224; and
  - (k) Owyhee River, South Fork are prescribed in NAC 445A.225.
2. The beneficial uses for these areas are:
  - (a) Irrigation;
  - (b) Watering of livestock;
  - (c) Recreation involving contact with the water;
  - (d) Recreation not involving contact with the water;
  - (e) Industrial supply;
  - (f) Municipal or domestic supply, or both;
  - (g) Propagation of wildlife; and
  - (h) Propagation of aquatic life.

(Added to NAC by Environmental Comm'n, eff. 9-20-90)—(Substituted in revision for NAC 445.13965)

## NAC 445A.215 Big Goose Creek. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Big Goose Creek

Control Point at Ranch.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum $\Delta T^{\circ C^a}$	$\Delta T = 0^{\circ}$	May-Oct. $<21^{\circ}$ Nov.-Apr. $<13^{\circ}$ $\Delta T <1^{\circ}$	Aquatic life and recreation involving contact with the water.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) - mg/l	—	$<0.1$	Aquatic life, recreation involving contact with the water, municipal and domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Nitrate S.V. $<1.0$	Nitrate S.V. $<10$ Nitrite S.V. $<0.06$	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	$>6.0$	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. $<25$	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. $<10$	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. $<185$	S.V. $<500$	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. $<9.0$	S.V. $<250$	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as $CO_3$ ) - mg/l	—	$<25\%$ change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	—	$<200/400^b$	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- c. Increase in color must not be more than 10 color units above natural conditions.
- d. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

# **NAC 445A.216 Salmon Falls Creek. (NRS 445A.425, 445A.520)**

## STANDARDS OF WATER QUALITY Salmon Falls Creek

Control Point at Highway 93 south of Jackpot.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum $\Delta T^{\circ C^a}$	$\Delta T = 0^{\circ}$	May-Oct. $<21^{\circ}$ Nov.-Apr. $<13^{\circ}$ $\Delta T <1^{\circ}$	Aquatic life and recreation involving contact with the water.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	—	$<0.1$	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (N) in mg/l	Nitrate S.V. $<1.0$	Nitrate S.V. $<10$ Nitrite S.V. $<0.06$	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	$>6.0$	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. $<25$	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. $<10$	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. $<250$	S.V. $<500$	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. $<14.0$	S.V. $<250$	Municipal and domestic supply, propagation of wildlife, irrigation, and watering of livestock.
Alkalinity (as $CO_3$ ) - mg/l	—	$<25\%$ change from natural conditions	Aquatic life, and propagation of wildlife.
Fecal Coliform - No./100 ml	— S.V. $<90$	$<200/400^b$	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation, and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

## NAC 445A.217 Shoshone Creek. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY Shoshone Creek

Control Point: Jackpot to Delaplain Road.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum $\Delta T^{\circ C^a}$	$\Delta T = 0^{\circ}$	May-Oct. $<21^{\circ}$ Nov.-Apr. $<13^{\circ}$ $\Delta T <1^{\circ}$	Aquatic life and recreation involving contact with the water.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	—	$<0.1$	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (as N) in mg/l	Nitrate S.V. $<1.0$	Nitrate S.V. $<10$ Nitrite S.V. $<0.06$	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	$>6.0$	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. $<25$	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. $<10$	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. $<250$	S.V. $<500$	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. $<15.0$	S.V. $<250$	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as $CO_3$ ) - mg/l	—	$<25\%$ change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	—	$<200/400^b$	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- c. Increase in color must not be more than 10 color units above natural conditions.
- d. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

# **NAC 445A.218 Jarbidge River: East Fork. (NRS 445A.425, 445A.520)**

## STANDARDS OF WATER QUALITY East Fork Jarbidge River

Control Point at the Nevada-Idaho state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum $\Delta T^{\circ}C^a$	$\Delta T = 0^{\circ}$	May-Oct. $<21^{\circ}$ Nov.-Apr. $<7^{\circ}$ $\Delta T <1^{\circ}$	Aquatic life and recreation involving contact with the water.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	—	$<0.1$	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (as N) in mg/l	Nitrate S.V. $<1.0$	Nitrate S.V. $<10$ Nitrite S.V. $<0.06$	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	$> 6.0$	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. $<25$	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. $<10$	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. $<200$	S.V. $<500$	Municipal and domestic supply, irrigation, watering of livestock.
Chlorides - mg/l	S.V. $<6.0$	S.V. $<250$	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as $CO_3$ ) - mg/l	—	$<25\%$ change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	— S.V. $<100$	$<200/400^b$	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

**NAC 445A.219 Jarbidge River upstream from Jarbidge. (NRS 445A.425, 445A.520)**

**STANDARDS OF WATER QUALITY**  
Jarbidge River

Control Point upstream from Jarbidge at bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum $\Delta T^{\circ C^a}$	$\Delta T = 0^{\circ}$	May-Oct. $<21^{\circ}$ Nov. -Apr. $<7^{\circ}$ $\Delta T <1^{\circ}$	Aquatic life and recreation involving contact with the water.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	S.V. $<0.05$	$<0.1$	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (as N) in mg/l	Nitrate S.V. $<1.0$	Nitrate S.V. $<10$ Nitrite S.V. $<0.06$	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	$>6.0$	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. $<25$	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. $<10$	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. $<65$	S.V. $<500$	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. $<7.0$	S.V. $<250$	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as $CO_3$ ) - mg/l	—	$<25\%$ change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	S.V. $<10$	$<200/400^b$	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

**NAC 445A.220 Jarbidge River downstream from Jarbidge. (NRS 445A.425, 445A.520)**

**STANDARDS OF WATER QUALITY  
Jarbidge River**

Control Point downstream from Jarbidge at bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum $\Delta T^{\circ C^a}$	$\Delta T = 0^{\circ}$	May-Oct. $<21^{\circ}$ Nov.-Apr. $<7^{\circ}$ $\Delta T <1^{\circ}$	Aquatic life and recreation involving contact with the water.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	S.V. $<0.05$	$<0.1$	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (as N) in mg/l	Nitrate S.V. $<1.0$	Nitrate S.V. $<10$ Nitrite S.V. $<0.06$	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	$> 6.0$	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. $<25$	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. $<10$	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. $<80$	S.V. $<500$	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. $<7.0$	S.V. $<250$	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as $CO_3$ ) - mg/l	—	$<25\%$ change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	—	$<200/400^b$	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli – No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

# **NAC 445A.221 Bruneau River: West Fork. (NRS 445A.425, 445A.520)**

## STANDARDS OF WATER QUALITY Bruneau River

Control Point at Diamond "A" Road.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum $\Delta T^{\circ}C^a$	$\Delta T = 0^{\circ}$	May-Oct. $<21^{\circ}$ Nov.-Apr. $<7^{\circ}$ $\Delta T <1^{\circ}$	Aquatic life and recreation involving contact with the water.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	—	$<0.1$	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (as N) in mg/l	Nitrate S.V. $<1.0$	Nitrate S.V. $<10$ Nitrite S.V. $<0.06$	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	$>6.0$	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. $<25$	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. $<10$	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. $<180$	S.V. $<500$	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. $<7.0$	S.V. $<250$	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as $CO_3$ ) - mg/l	—	$<25\%$ change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	— S.V. $<80$	$<200/400^b$	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli – No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)



**NAC 445A.222 Owyhee River: East Fork above Mill Creek. (NRS 445A.425, 445A.520)**

**STANDARDS OF WATER QUALITY**  
Owyhee River

Control Point above Mill Creek.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum $\Delta T^{\circ C^a}$	$\Delta T = 0^{\circ}$	May-Oct. $<21^{\circ}$ Nov.-Apr. $<7^{\circ}$ $\Delta T <1^{\circ}$	Aquatic life and recreation involving contact with the water.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	—	$<0.1$	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (as N) in mg/l	Nitrate S.V. $<1.0$	Nitrate S.V. $<10$ Nitrite S.V. $<0.06$	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	$>6.0$	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. $<25$	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. $<10$	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. $<200$	S.V. $<500$	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. $<8.0$	S.V. $<250$	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as $CO_3$ ) - mg/l	—	$<25\%$ change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	—	$<200/400^b$	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli – No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

**NAC 445A.223 Owyhee River: East Fork south of Owyhee. (NRS 445A.425, 445A.520)**

**STANDARDS OF WATER QUALITY  
Owyhee River**

Control Point at New China Dam.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum $\Delta T^{\circ C^a}$	$\Delta T = 0^{\circ}$	May-Oct. $<21^{\circ}$ Nov.-Apr. $<7^{\circ}$ $\Delta T <1^{\circ}$	Aquatic life and recreation involving contact with the water.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	—	$<0.1$	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (as N) in mg/l	Nitrate S.V. $<1.0$	Nitrate S.V. $<10$ Nitrite S.V. $<0.06$	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	$>6.0$	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. $<25$	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. $<10$	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. $<250$	S.V. $<500$	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. $<8.0$	S.V. $<250$	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as $CO_3$ ) - mg/l	—	$<25\%$ change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	— S.V. $<125$	$<200/400^b$	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli – No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $\leq 410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.
- The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

## NAC 445A.224 Owyhee River: East Fork, Nevada-Idaho state line.

### STANDARDS OF WATER QUALITY Owyhee River

Control Point at the Nevada-Idaho state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum (a) $\Delta T^{\circ}C$	$\Delta T = 0^{\circ}$	May-Oct <21° Nov-Apr <7° $\Delta T < 1^{\circ}$	Aquatic life, water contact recreation.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l	—	<0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06 Ammonia S.V. <0.02 (un-ionized)	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Dissolved Oxygen in mg/l	—	>6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l	—	S.V. <25	Aquatic life, municipal and domestic supply.
Turbidity - NTU	—	S.V. <10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <240	S.V. <500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. <11.0	S.V. <250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l	—	<25% change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No./100 ml	—	<200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
Color	—	c	Municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- c. Increase in color must not be more than 10 color units above natural conditions.

(Added to NAC by Environmental Comm'n, eff. 9-20-90)—(Substituted in revision for NAC 445.13975)

## NAC 445A.225 Owyhee River: South Fork. (NRS 445A.425, 445A.520)

### STANDARDS OF WATER QUALITY South Fork Owyhee River

Control Point at Petan Access Road.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum $\Delta T^{\circ C^a}$	$\Delta T = 0^{\circ}$	May-Oct. $<21^{\circ}$ Nov.-Apr. $<13^{\circ}$ $\Delta T <1^{\circ}$	Aquatic life and recreation involving contact with the water.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	—	$<0.1$	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (as N) in mg/l	Nitrate S.V. $<1.0$	Nitrate S.V. $<10$ Nitrite S.V. $<0.06$	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	$>6.0$	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. $<25$	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. $<10$	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. $<280$	S.V. $<500$	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. $<15.0$	S.V. $<250$	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as $CO_3$ ) - mg/l	—	$<25\%$ change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	—	$<200/400^b$	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	$\leq 126$ $<410$	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- c. Increase in color must not be more than 10 color units above natural conditions.
- d. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

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